THE EDUCATIONAL FORUM

VOLUME XXIII NUMBER 1

PLATO AND THE TRAINING OF CHARACTER ..... Sir R. W. Livingstone
EDUCATION FOR OUTER SPACE ..... Vera Micheles Dean
MYTHS WHICH HOODWINK THE PUBLIC ... Harold C. Hand
THIS THING CALLED EVALUATION ..... Max Marshall
NEEDED: A DECLARATION OF DEPENDENCE ..... George D. Stephens
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BOOK REVIEWS

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Behind the By-Lines

With the present interest in fundamental principles in education in America and abroad, our readers will welcome the article *Plato and the Training of Character* by Sir R. W. Livingstone, formerly President of Corpus Christi College, Oxford, and Vice-Chancellor of Oxford University. He is universally well-known through his books such as "On Education," "Some Tasks for Education," "Education and the Spirit of the Age," "Greek Ideals and Modern Life" and other books on Greek Classics.

Education for Outer Space is the substance of a commencement address given by Mrs. Vera Micheles Dean at Briarcliff College, last summer. Mrs. Dean is Editor for the Foreign Policy Association and (since 1954) Director of the Non-Western Civilizations Program of the University of Rochester. She holds a Ph.D. degree from Radcliffe and is the recipient of many honorary degrees. She is a Chevalier of the French Legion of Honor and the recipient of the Jane Addams Medal. She has taught at Barnard, Smith, Mills and the New School of Social Research.

Myths Which Hoodwink the Public discusses nine myths regarding the public high school. The myths are in the nature of accusations against the schools and the article is devoted to exploding them. The author is Dr. Harold C. Hand, Professor of Education, University of Illinois. For six years he was a member of the Defense Commission of the National Education Association. He is the author of "Principles of Public Secondary Education" and "What People Think about Their Schools."

Max S. Marshall, Professor of Bacteriology, University of California School of Medicine, displays great interest in teaching, particularly on the university level. He writes, "I try to keep up bacteriologic publication, but I have an interest in teaching that sometimes gets ahead of my subject." Among his books are "Two Sides to a Teacher's Desk," "Upward by Degrees" and "Let's Appoint a Committee." His article in this issue is *This Thing Called Evaluation.*

Education and the Critics, 1958 also is concerned with attacks made on education in American schools. Dr. Joseph E. Gould, Dean of Students, State University Teachers College, Fredonia, New York, was Fulbright Lecturer in Comparative Education, University of the Punjab, Lahore, Pakistan, 1952-53. While there he wrote a series of articles on philosophy of education for the Punjab Journal of Education.

George D. Stephens, Associate Professor of English, Long Beach Teachers College, Long Beach, California, is author of *Needed: A Declaration of Dependence,* which discusses the matter of discipline in our schools, and the need for firmer control. Professor Stephens is at present lecturing on American literature as a Fulbright scholar at the University of Chile, Santiago.

In Moments of Reflection Jesse Stuart, famed Kentucky poet and novelist, writes of two subjects *Is Walking Obsolete?* and *It Sometimes Pays to Look Down as Well as Up.* He has written more than a score of books. Perhaps more of his short stories are printed in high school anthologies than any other writer.

John I. Goodlad, Professor of Education and Director of the Center for Teaching and Education, The University of Chicago discusses *Societal Pressures and the Curriculum.* Dr. Goodlad is a member of the Board of Editors of the School Review and the Journal of Teacher Education. He is co-author of "The Elementary School" and "Educational Leadership and the Elementary School Principal."

The Network and the Blackboard consists of reflections on television and education with particular reference to experimental work in Great Britain. Kenneth Vye

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THE EDUCATIONAL FORUM

VOLUME XXIII NUMBER I

NOVEMBER 1958

Plato and the Training of Character

SIR R. W. LIVINGSTONE

WHAT LINES will education follow in the near future, what will be its general direction and aim? I have no doubt that it will concentrate far more than hitherto on the training of character. It is the pressing need of the day. We have gone far on the road to master nature, and we shall go farther. A generation ago many people thought that this mastery would progressively turn the world into an earthly paradise; today salvation by science is seen to be an empty dream. It is clear that science cannot do all that we had hoped from it, and the reason is equally clear. It can only operate through human beings, and they are as likely to use for evil as for good the powers which it gives. Surely the conclusion to be drawn from this is that we must concentrate on improving man far more than we have done. We have hygiene for the body. Might there not be also a hygiene for the character? It would be a difficult undertaking—and a dangerous one. But the problem should be attacked.

I do not propose to attack it now but to talk about a man who believed that the object of education was to train character, and to say something about the system he conceived for doing it.

I

It is interesting to reflect that but for an accident Plato might have been drawn into political life and never been a philosopher. I will quote his own description of the reasons that determined his career. "My experience as a young man was not at all unusual. I thought that as soon as I became my own master I would enter public life. The democratic regime of the time was generally detested and a revolution took place. It was headed by a small supreme committee of thirty. Some of the members of this committee were relatives or acquaintances of mine and invited me to join them. I thought that the new regime would substitute the reign of justice for the reign of injustice; but I saw these gentlemen within a very short time make the de-

mocracy they had destroyed seem like a golden age!

"When I considered the type of men who were administering affairs, and the condition of the Law and of public morality, the more difficult appeared to me the task of decent government. Moral standards and the observance of law were degenerating with surprising rapidity and I came to the conclusion that the condition of politics is everywhere so deplorable that no good government is possible without drastic reconstruction combined with some very good luck. And so I was forced to praise true philosophy and to declare that through it alone can real justice both for the State and for the individual be discovered and enforced. Mankind (I said) will find no cessation from evil until either the real philosophers gain political control or else the politicians become by some miracle real philosophers."

Who would be surprised if a man today, of high intellectual powers and with the ambition to devote them to the service of humanity in political life, felt like this—felt that what the world most needed was a re-thinking of the bases of politics and morals, in order to find firm ground on which a better order of human society could be built? Indeed our age is waiting for a modern Plato to do for us the service which the Greek Plato did for his own age and for all generations after it. The future Plato may have been born already—in what country of the world, who can tell? Meanwhile it is worth considering what was the treatment, that after long years of study and thought, Plato prescribed for his age: for its distemper was, with certain obvious differences, curiously like our own, and due in the main to the same causes—the impact of science, the impact of a great war, and the appearance of the revolutionary spirit.

II

There was only, Plato thought, one way in which the political problem could be solved. "Educate your rulers," was his solution. Indeed the *Republic* has been called a treatise on education. It is much more than that; but a fifth of the work is devoted to education.

"Educate your rulers." You may say that by the word "rulers" Plato meant something different from what we mean. He thought that states should be governed by a natural élite; we, who believe in democracy, hold that in their interest and in the interest of the common weal, every citizen should have a voice in government. But if we had pointed this out to Plato he would surely have answered, "Your constitution is different from mine, but you have to face the same problem in another form. If every citizen shares in the government of your state, that does not mean that the need to educate them for the task disappears, it only means that you have more people to educate." Let us, therefore, giving Plato credit for being the first to make the great discovery that the problem of politics could only be solved by education, pass on to see what he meant by it. His answer is definite and unmistakable: the aim of education is the training of character. It was an unexpected answer to come from a people, famous primarily for intellectual

and artistic genius and from a man who had both these gifts in the highest degree. But we sometimes forget that the Greeks were more than the creators of great literature and science, the builders of the Parthenon, the sculptors of its great frieze and of many another masterpiece, that they also laid the foundations of natural religion and natural morals.

Anyhow that was Plato's answer. He defines the essence of education as training people "to hate what they ought to hate and to love what they ought to love." It could not be put more succinctly and more uncompromisingly, and here we are conscious of a view rather different from our own and perhaps of a clearer vision. No school would deny that the training of character was among its objects—I am less sure about colleges and universities—and there have been great educators, like Thomas Arnold, who have made it their central purpose. But, if you went through the schools of England and America, I doubt if you would find in effect that this was the object to which their efforts were consciously and wholeheartedly directed. If it is, the results of the efforts are sometimes disappointing.

But surely Plato was right; and surely John Ruskin was right when, expressing Plato's view still more emphatically he said "Education does not mean teaching people to know what they do not know: it means teaching them to behave as they do not behave." Does our education do that? Yet is it not evident that the great obstacles to progress in ourselves, in our countries and in international relations, come from human conduct, from moral weaknesses and defects in everyday behavior, from cowardice and egoism and pride, from lack of honesty and of candor and of sympathy and of resolution? And is it not time that we did something about it, tackled the problem as a scientist or a business man tackles his problems, and bring to bear on it all the intelligence and study and determination which are at our command?

III

How does Plato think that character can be trained and men brought up to hate what they ought to hate and to love what they ought to love? His answer is that our characters are in the first instance formed by the atmosphere in which we are brought up. In his scheme of early upbringing both in the *Republic* and later in the *Laws* where he deals with the education not of a ruling class but of the youth of the nation as a whole, it is on the atmosphere that he lays stress. The books a child reads are designed to imbue him with the right attitude to life; the music which is chosen for him to learn has "rhythms appropriate to a life of courage and self-control" which will develop harmony and rhythm in his nature; his physical training is to counteract any weakness of the body that might betray "the virtuous mind." And the principle goes beyond literature and music and games. In the best-known and most often quoted passage of the *Republic* Plato urges that the whole life of the young should be lived in a circumamnient atmosphere of goodness, shaping the soul. "Then we must not only compel our poets to make their poetry the

express image of noble character; we must also supervise artists of every kind and forbid them to leave the stamp of baseness, license, meanness, unseemliness, on painting and sculpture, or building, or any other work of their hands; we do not wish our future rulers to grow up among representations of moral deformity, as in some unhealthy pasture where, day after day, feeding on every poisonous weed, they would, little by little, gain insensibly a mass of corruption in their very souls. Rather we must seek out those craftsmen whose instinct guides them to whatsoever is lovely and gracious; so that our young people, living in a wholesome climate, may drink in good from every quarter, and, like a breeze bearing health from healthy lands, influences from noble works may constantly fall upon eye and ear from childhood upwards, and imperceptibly draw them into sympathy and harmony with the beauty of reason, whose impress they take."

Contrast this vision of the ideal surroundings for training character with the influences with which the young are surrounded in our society—"the representations of moral deformity" in which much of our radio and TV, our films, our press, our literature abounds.

Plato continues: "Hence the decisive importance of education in poetry and music: rhythm and harmony sink deep into the recesses of the soul and take the strongest hold there, bringing that grace of body and mind which is only to be found in one who is brought up in the right way. Besides, a proper training in this kind makes a man quick to perceive any defect or ugliness in art or in nature. Such deformity will rightly disgust him. Approving all that is lovely, he will welcome it home with joy into his soul and, nourished by it, grow into a man of a noble spirit. He will rightly condemn and hate all that is ugly and disgraceful, while he is still too young to understand the reason; and when reason comes, he will greet her as a friend with whom his education has made him long familiar."[1] How far Plato has progressed beyond the Socratic view that virtue is knowledge! How profound and modern is his psychology!

IV

There is only one element missing here. It is curious that, while Plato stresses the importance of the quality of what a child reads and learns, of his games and music, of architecture and art and physical surroundings, he says nothing of the most penetrating and permanent of all influences—that of good human beings.

It is a tremendous, indeed—the world being what it is and men what they are—an impossible ideal. But behind it lies an essential truth, continually to be borne in mind. Show me any school where it is ignored, and I will show you a defect which will be reflected in the character of its pupils and through them, when they grow up, in the character of the state. In education, and afterwards in life, atmosphere is the greatest influence in determining the conduct and outlook of the great majority of men.

I am not of course attempting to give a full account of the means by which

[1] *Republic* 400f. (tr. Cornford).

Plato proposes to train the character, but only to call attention to some points in his scheme which seem instructive. Among these is his view of physical training. It is the best account I know of its place in education. He does not say a word about its value for health and physical development. No doubt these problems were not as urgent in the small Greek city open to the country on every side as they are in the huge industrial towns of today: health, bodily fitness, are assumed as natural; Plato's interest in physical training is solely for its effects on character and for this he regards it as essential. In a profound passage he insists on the importance of a balance being kept between the development of the mind and of the body, if character is to be properly trained. The mere athlete will be only a fine animal and is likely to end "by being wholly uncultivated and a hater of reason. He has no use for reasonable persuasion, he gains all his ends by violence, like a brute beast, and he lives in a dull stupor of ignorance with no touch of inward harmony or grace." But the mere intellectual will tend to suffer from equally serious though different defects. If his temperament is what Plato calls "naturally spiritless," he is likely to become soft. If he is naturally "high spirited," he is likely to be "weak and unstable, readily flaring up and dying down again on slight provocation. Such men become rather irritable, bad-tempered, and peevish." They are sometimes found in literary and artistic circles, and they are familiar in certain walks of journalism, where their "irritability" and "peevishness" do at least as much harm as their sensibility and intellectual power do good.

So Plato, this intellectual, this philosopher for whom the Ideas are reality and the material world only a shadow, and for whom the climax of education is the vision of the "Idea of the Good," stresses the importance of physical training for the sake of its effects on character, through all stages of education, from the formal gymnastics of early days to the military service compulsory for the grown youth. "Every city," he says, "should take the field at least for one day in every month, summer and winter, going out en masse, including the wives and children. There should be games, tournaments, and prizes and speeches. Girls who are not grown up shall compete in the running and the horse-racing. From the age of thirteen and upwards they shall be compelled to run until they are eighteen, and they may compete if they are not more than twenty. In the contests for mounted archers, and spearmen, women are not to be forced to compete by law; but if from previous training they are strong enough and wish to compete, let them do so, girls as well as boys, and no blame to them." Then there are the camping parties where the young "meet together and determine that they will be their own servants and will not have other slaves and servants for their own use, neither will they use those of the villagers and country people for their private advantage; and in general they should make up their minds to live independently, servants of each other and of themselves."

Now for a second example of Plato's insistence on character-training as the aim of education, where a most unexpected subject is used for the purpose—mathematics. Mathematics and science are prominent in Plato's curriculum. He recognizes their practical value, but they are present in his higher education predominantly for another purpose—not to be used in the material world but to direct the mind to a world beyond and outside it.

It is surely a mark of the educated mind, to remember that there is more in phenomena than their outward aspect. It is an antidote to the grosser forms of materialism, if we can see the material world with the eye of the mathematician, as a complex of ratios or formulae; or with the eye of the scientist, as a kingdom of law. If we cannot use our mind as well as our eyes, we are likely to have a very mistaken idea of what the universe is—or indeed of what we are ourselves. The ultimate realities are mind and spirit but we must look below the surface to see them. As an English poet said:

> The angels keep their ancient places
> Turn but a stone and start a wing;
> 'Tis you, 'tis your estranged faces
> That miss the many coloured thing.

Those words of Francis Thompson would have been strange to Plato but not the thought.

V

I will not discuss whether this capacity to look behind phenomena to ultimate reality is best developed through the study of mathematics and the other subjects which Plato suggests. But I should like to call attention to a more general principle implicit in these prescriptions of his—the importance of being able to detach the mind from the immediate and the present and so giving it the power to look at life, not with the eyes of a contemporary, but as the future will see and judge it.

Here is the danger of vocational education, narrowly conceived. It is of course necessary to live in the world of today and to be at home with its current techniques, so far as we need them. But if we stop there, we remain children playing with the latest toys and unaware that there is anything outside the nursery. We shall indeed be ephemera, creatures of a day, unable to look beyond it. That narrowness of vision is written all over our civilization and the more prosperous we are materially, the more legible is the inscription. So we have an age smug and self-satisfied, until suddenly an unquiet feeling comes that something is wrong, and then we are puzzled and dismayed and fall into a mood of self-mistrust and pessimism which is as absurd as our former self-satisfaction and even more dangerous. A just combination of detachment and, if I may so use the word, attachment, is one of the secrets of success in life. Surely Plato was right about the dual purpose in education—the need to look at our world at a distance as well as near at hand, to see it in the year 1958 but also, in Plato's own phrase, in the light of all time and all existence.

Plato, a mathematician, thought that the mind could best be detached from the world by the study of mathematics. And for the kind of detachment which

he had in mind, this may well be true. But for the detachment which enables men to see their age *sub specie aeternitatis*, or at least as the future may view it, to discover the weaknesses and absurdities in it which we do not notice and also perhaps virtues of which we may be unaware, there are other means to our hand. One is the study of history, provided that it is the history of significant ages which have some relation to our own civilization. The obvious periods for us to study are the Graeco-Roman world and the Middle Ages, and no higher education seems to me complete without some knowledge of one or both of these. It is a common delusion that modern history can best be understood by studying the twentieth century. But the present is conceived long before it is born. In fact we may learn more about it from Frederick the Great or Metternich, and still more perhaps from Pericles or Augustus.

Graeco-Roman civilization is the closest to our own, whether you take its later days as a rich, cultured and world-wide society, embracing many lands, peoples and faiths, or the earlier Greek period in which reason was born and applied to every province of life, and when Athens affords the spectacle of the most civilized democracy which history has known. The Middle Ages are more remote. But in them we see something which we desire and have not yet achieved—the pattern of an integrated society and of a world united through all its differences by a universal faith and a common ideal.

The study of the past will not delude us into the belief that we can return to it or blind us to the virtues and advantages of our own times. Indeed it should help us to appreciate them better. But we may see qualities in those dead societies which are absent or weaker in our own, and be led to consider whether we cannot recreate their virtues in terms of modern life. And we may be saved by the example of the past from making its mistakes. As Santayana said, "Those who cannot remember the past are condemned to repeat its errors." But above all the study of other great civilizations saves us from becoming the dupes of our own.

All this, I know, is an extension of Plato's doctrine rather than an interpretation of it. His aim was to free the mind from a different slavery—slavery to the phenomenal world, to train it to look behind the particular to the general, behind phenomena to underlying law. I have had in mind a different but equally dangerous and ignominious servitude. But, either way, this surely is a point to be remembered in education—the importance of training men to be able to detach themselves from the present. That does not mean indifference to it. Plato's ideal was not the cloistered life of a saint or student remote from the world. He wished to make men what he calls "philosophers" for the good no doubt of their own souls, but also that they might be fit to take their part in governing the state.

Time will only allow me to mention one other of the instructive ideas in Plato's educational scheme. To what climax do our studies lead? To the degrees of Bachelor of Arts or Ph.D.? And what precisely do these mean? No de-

grees were given in the Platonic Academy, but there was no doubt in Plato's mind about the final goal of education, though he held that it could only be reached in later life. "When they are fifty, those who have come safely through and proved the best at all points both in study and action must be brought at last to the goal. They must lift up the eye of the soul to gaze on that which sheds light on all things; and when they have seen the Good itself, they must take it as a pattern for the right ordering of the state and of the individual, themselves included."

VI

Strip these words of Platonic phraseology, adapt this vision of an ideal world to the actual conditions of our life, and there remains a profound and essential truth—education must lead to a philosophy of life. It makes no difference that any philosophy will be imperfect and that experience will modify at least its details. But it is only commonsense that if a man is to take any share in governing the world (and in democratic societies all are expected to do this), he should have some estimate of it, some idea of values. If, as Plato says elsewhere, he cannot discover certain truth, he should "take the best and most probable of human theories and let this be the raft on which he sails through life." How otherwise can he act with purpose? How can he go anywhere unless he has an idea where he wants to go? Some philosophy a man must have and it is the business of education to help him to it. Perhaps instead of "philosophy" I should have said "religion."

Here too, in his insistence that education should lead up to the vision of what he calls the Idea of Good, Plato still is concerned with the training of character, though at this level intelligence, knowledge, values and conduct meet. Without the right guiding principle, clearly seen and firmly held, character is incomplete. Train people to be courageous, just, truthful, unselfish, disinterested, able to live and co-operate with others, and you will have done a great work, but it will be unfinished if the eye of their soul has not seen that which sheds light on all things, the Good itself. They will be splendid instruments, but without the knowledge how to make full use of their virtues and powers.

Nothing in Plato is more worth our taking to heart than his insistence on this. Here is a great defect of our education, that too often it does not lead to a clear philosophy of life, to clear ideas of what is right and wrong, to definite values; and that defect is reflected in our world, with its false starts and uncertain purposes, with its ludicrous and tragic failure to use immense resources rightly, with its atomized existence.

The problem is of course very difficult. We are living, like Plato—this is one reason why he is so significant to us—in a world where the impact of science has disturbed the traditional views of the universe, of morals, of religion and of politics, as it disturbed them in fifth century Athens; and no modern Plato has yet appeared to bring order into the resulting confusion. Our greatest need today is a philosophy which will unify our own lives by a directing purpose. This may be the first step to

one which will unify the world.

To sum up, Plato as a young man sustained two blows as heavy as can fall to anyone's lot. He was twenty-three when his hopes of a great political reform were destroyed and his beliefs in his political associates were shattered. He was twenty-eight when his master Socrates was unjustly put to death, and he was left in a world where, in his own words, decent government seemed almost impossible. He might well have become cynical or pessimistic or frightened or despondent. Instead he devoted his energies to studying the problem how a world could be created fit for men to live in. His answer was "create men fit to live in such a world; the means for this lie at hand in education, but it must be an education concentrated on the development of the virtues necessary to bring into being the kind of society that we should desire."

That is the thesis of this article. What the world wants is a better class of inhabitants than it has at present. If we devoted as much thought to their betterment as we do to producing good strains of wheat or cows, we might change things immensely for the better; and there in no other way in which they can be changed. The improvement of men is the necessary prelude to the improvement of society, and the instrument for this is an education deliberately planned to improve them.

HE ENJOYS TEACHING

Charles Calitri, high school teacher in East Harlem, is the author of a novel, "Strike Heaven on the Face," showing the high school dean's constructive work in a case of teen-age delinquency. He has already received $200,000 for film rights and can earn up to $300,000 more in later payments, but he is back teaching his classes at Benjamin Franklin high school. He comes from a family of teachers and the *New York Post* quotes him as saying: "The gravy is nice, but I teach for a living." According to *Publishers' Weekly* advance sales of his novel are around 25,000 copies.

In Autumn

Dorothy Lee Richardson

Why do they put it in the middle of winter?—
Now is the time when the year begins;
When sleeping dog-days' lives are over
And leaves as limp as hot-weather butter
Are whipped and crisped by a frosty wind.
Now, at the end of Indian summer,
When leaves blow over, the year blows over.
With three months left on the calendar
The real New Year begins.

With a rush at the heart and a rustle in the gutter
The tops of the side-walk trees are thinned;
The slanting gold of the sun grows colder,
But hills light up as if an ember
Flashed into flame at the lash of wind.
Somewhere around the end of September,
Somewhere around the start of October,
The red-letter red-leaf calendar
Shows that the year begins.

Education for Outer Space*

Vera Micheles Dean

I

Today, as we worry about the sky-traffic problems of earth satellites and dream of voyages to the moon, we are apt to think that we who live in the second half of the twentieth century are the most displaced persons in history. For, instead of feeling securely grounded on earth, which is the only planet familiar to us, we are now set adrift among the galaxies of stars.

Our minds reel at the prospect of navigating uncharted realms of space, of losing such attributes of earthly beings as weight, and the sense of time so essential to the existence of Western man. And, depending on our temperament, we are either appalled by our sudden disorientation, or exhilarated at the thought of exploring new frontiers.

But this is by no means as novel a feeling as we think. Three centuries ago Western man also experienced the shock of decentralization as he learned from Copernicus and Galileo that the earth, far from being fixed in a stable and immutable world order, was in fact orbiting around the sun in the midst of a limitless universe. As the brilliant critic Marjorie Nicolson has so well put it, "the circle of perfection," of an ordered and preordained existence that gave man a sense of security was broken by scientific knowledge—and above all by the possibility of glimpsing through the "optick tube"—the telescope—the newly discovered marvels of outer space.

No wonder that the poets of the seventeenth century expressed both the despair and the exhilaration of their contemporaries. John Donne, whom the new discoveries filled with a pessimism that makes him kin to us in our era of change and anxiety, cried out: "And new Philosophy calls all in doubt," and, again, " 'Tis all in peaces, all cohaerence gone; All just supply, and all Relation."

But for others astronomy opened doors to intellectual adventures which fired the imagination, and tested minds and souls to the uttermost limit. Thomas Traherne sang ecstatically: "I felt no Dross nor Matter in my Soul, / No Brims nor Borders, such as in a Bowl . . . / We see: My Essence was Capacitie."

Surely we of the twentieth century, equipped with a technology which would have seemed sheer fantasy three hundred years ago, should welcome the opportunity to have *our* "capacitie" challenged to its innermost depths. For it is this challenge that makes the use of the mind such an exciting and ever novel experience.

What new dimensions, what new tools of the mind do we need to live creatively in this age of outer space? There are six skills that we need to master without delay.

* Commencement Address, Briarcliff College, June 9, 1958.

II

First, even if we should never set foot in a spaceship bound for the moon, we must learn to look at this earth from a new point of vantage—as if we had already taken up a station four or more hundred light years from our present habitat. More than at any time in man's known existence, we must acquire a sense of perspective, must take a long view at ourselves—the longer the better. As the distinguished scientist Lloyd V. Berkner points out: "For the first time man can see terrestrial phenomena on a planetary scale. . . . By escaping into space, man has dropped the 'gray' monochromatic vision of the insect—he can now see the full glory of the whole range of color that the universe provides."

The more scientific knowledge we acquire, the more essential it will be for us to know and appreciate the values mankind has accumulated in the millennia through which, to our ever renewed surprise, it has managed to survive. Seen through this telescoped process of thought man, far from growing smaller and less significant, will loom more important: for to a greater degree than in the past we shall, or at least we must, learn to see man not as a fragment of the genus Man, but in his wholeness. Just try to imagine how you would go about describing mankind to a sentient being, if such exists, on Mars or on the moon.

Surely, at that distance from the earth, we would discard those aspects of man which are transient and irrelevant. We would paint a portrait of our fellow-humans in broad strokes and let the details go. We would see how insignificant are the lines of race, color, creed or material possessions that so often separate human beings and embroil them in mortal combat.

History would no longer be for us a welter of chronology which we all quickly forget but a sense of perception—the kind of perception which permits us, at a moment of great tragedy or on the brink of death, to put first things first, to expunge from our memory all but the quintessence of human relations. Seen in this way, wars and rumors of wars, hatreds that blind human beings to their own interests and poison the wellsprings of friendship, of love, of co-operation between nations, will seem petty and useless when matched against the rounded vision which all nations will now have of our planet.

Second, instead of singling out science for a new idolatry which, we mistakenly assume, exists in Russia, we must on the contrary infuse it into the teaching of the humanities. We often complain that the scientist is not sufficiently versed in poetry or social studies or art. But why should not the poet or the politician, for his part, be imbued with the scientific spirit? Think of the way in which the seventeenth century poets found inspiration in the discoveries of their times! Why should not the wonders of nuclear energy—assuming we devote it to fulfilling mankind's dream of a richer life—open for us new vistas on the magic of the universe?

III

Third, to achieve this new view of ourselves we must acquire a sense of the interconnectedness of knowledge

which we have not possessed since the Renaissance. We need men and women of the quality of Leonardo da Vinci, who could not only visualize the beauty and mystery of human beings but also anticipated the structure of flying machines.

Let us have an educational revolution that would be a match for the technological revolution we both welcome and fear. Let us forswear jurisdictional disputes between academic disciplines, and welcome co-operation between scholars and teachers, between the university and the high school, between the intellectual and society as a whole. Let us train teachers whose minds can range the whole gamut of human knowledge. Let them give the specialists required by modern technology the breath-taking opportunity of glimpsing the storehouse of our intellectual riches, not piece by unrelated piece, but in its full and dazzling array.

Fourth, if we are to meet the new problems created by contact with outer space, we must make sure that we train men and women who do not merely accept an established order with docility, but who are capable of taking the fantastic risks of landing on the moon or studying plant life on Mars. Any kind of determinism, whether Marxist or anti-Marxist, could prove fatal in conditions that are increasingly unpredictable. And since only the fearless can teach fearlessness, let us welcome, encourage, reward teachers who are unafraid to encompass new ideas, to prospect in unexplored territory.

Fifth, let us store the mind of the individual with imperishable nourishment that he can carry away and feed upon no matter how long he survives in outer space. For, contrary to the assumption that what he will need most is an array of newfangled space garments and gadgets for physical survival, what he will ultimately need most of all, when he is detached from our habits of weight and time and space, is mental food which can comfort and companion him in the awful loneliness of voyages into the unknown. Lewis Carroll, with his fertile imagination, foresaw this contingency. As Alice in Wonderland went "down, down, down" into the rabbit hole with the " 'satiable curiosity of the Elephant's Child," what was her strongest impulse? Alice decided to repeat to herself some of the things she had learned, such as the meaning of latitude and longitude. Like her, we shall need greater inner resources than ever before for life in outer space.

And, finally, we must not make exploration of outer space a form of escape from the problems we face here on earth. No matter what we discover among the stars, we shall still need to find remedies for overpopulation and undernourishment; for the physical and psychological disabilities that produce juvenile delinquency; for the maladjustments, political, social and economic, that foment wars and revolutions; for our failure, so far, to create workable relations between peoples in the world community. It is not an accident that some of the most hopeful advice about international co-operation has come to us from scientists who are aware of the

promise of outer space—from those who are engaged in the study of the international geophysical year and of the mysteries of fission and fusion.

For at the ultimate moment of departure from the familiar conditions of this earth, man must be more than a well-equipped machine. He must be a sentient being who is able to use his mind. Then only can he experience the matchless excitement of intellectual delight, as Henry More, another seventeenth century poet, described it when he said: "th' infinite I'll sing/ Of Time, of Space . . . I'm brent/ with eager rage, my heart for joy doth spring/ and all my spirits move with pleasant trembeling."

The problem of using education as a maximally constructive force in national and international policy (not just military policy), while at the same time preserving traditional values, poses an exciting challenge to political and educational statesmanship. Perennial problems for which we have yet to develop satisfactory policies are the questions of how to finance a vastly improved educational program and how to solve the nation-old riddle of federal versus state responsibility. Perhaps more important is to agree on a set of values and objectives that will give the whole educational venture the status it must have if it is to serve effectively in this larger role and that will accommodate our different but not necessarily conflicting values of aiding the handicapped, serving the average, and developing the superior student, each optimally in terms of his own capacities and potentialities.—Editorial, Science, *February 21, 1958*

Myths Which Hoodwink the Public

HAROLD C. HAND

I SHALL deal here with nine myths concerning the public high school. Each of these is in the nature of a false idea or belief which various and sundry persons, but certain scholars for the most part, seem intent on foisting upon the public.

Serious accusations which reflect discredit on the public secondary school are based on these myths—accusations which, if generally believed to be true, are certain to lead the public to lose confidence in the public schools. That the scholar or other accuser in question may be innocent of any awareness that he has been victimized by a myth does not, of course, lessen in any way the damage that his ignorance has permitted him to do.

My plan here is to do three things in respect to each of these myths. First, I shall state or name the myth. Second, I shall give the factual evidence that proves it is indeed a myth. Third, I shall either document or demonstrate this factual evidence.

I

Let us deal first with a myth which has quite certainly misled a great many people. The public has been told by various scholars that the number of all American high school students taking science "has dropped to only 54 percent today,"[1] and that "the total percentage of [high school] students taking mathematics [today] is 55.0."[2] These statements clearly imply that nearly half of our present-day high school students take no work in these subject fields during their high school careers.

Anyone who is led to believe that no work in science and mathematics is recorded on the transcripts of nearly half of today's high school graduates has been grossly misled. He has been hoodwinked by a myth which, in its generalized form, can be stated thus:

The one-year percentage enrollment figure for a given high school subject field tells what fraction of the students take, and hence what fraction does not take, work in that subject field during their four high school years.

Now let us demonstrate that this is indeed a myth. A very simple illustration will show why it is a fiction. To make our illustration as easy to follow as possible, let us suppose that the total student body in High School A numbers 500 youths, and that there are 155, 135, 115, and 95 pupils, respectively, in the 9th, 10th, 11th, and 12th grades; these percentages reflect exactly the proportions of students the country over who are found in the various high school grades.[3] Then let us suppose further that the enrollments in the science courses for the present school year are as given in the third column below; these numbers reflect the percentages of pupils the country over who are enrolled in science at the various grade levels:[4]

Grade	Total Registration	Enrollment in Science
9	155	104
10	135	103
11	115	40
12	95	23
	500	270

Let us suppose still further that the same enrollments in science obtained during each of the three preceding school years.

It can easily be seen that only 54 percent of the total student body (500 ÷ 270) is enrolled in science during the present school year. It is no less evident that one is badly misled if he assumes that the fact that "only 54 percent" of the students are enrolled in science "today" means that nearly half (46%) of the present-day seniors have taken no work in this subject field during their high school careers. Actually, the U. S. Office of Education reports that the numbers of students now taking general science, biology, chemistry, and physics are equivalent to 67, 76, 35, and 24 percent, respectively, of the numbers of pupils found in the 9th, 10th, 11th, and 12th grades. Instead of "only 54 percent," then, no fewer than three-fourths of today's high school students enroll in some science course during their four-year stay in high school. Actually, more than three out of every four do so, because the 76 percent figure for biology does not include all the pupils who earlier took general science.

As also reported by the U. S. Office of Education, the corresponding figures for mathematics are as follow:

—the enrollment in elementary algebra, a 9th grade subject, is equivalent to 67 percent of all the 9th grade students in this country; in general mathematics, also a 9th grade subject, the corresponding percentage is 43. Because of repeaters and the fact that some pupils take algebra or general mathematics as sophomores, it seems most likely that about 95 rather than 100 percent of the 9th grade pupils are enrolled in some mathematics course.

—the enrollment in plane geometry, a 10th grade subject, is equivalent to 42 percent of all the 10th grade students in this country.

—the enrollment in intermediate algebra, an 11th grade subject, is equivalent to 32 percent of all the 11th grade students in this country.

—and the enrollments in solid geometry and trigonometry, which are one-semester 12th grade subjects, are equivalent, respectively, to 13 and 16 percent of all the 12th grade students in this country.[5]

Obviously, one is also badly misled if, because he has been told that "only 55 percent" of the total student body is enrolled in mathematics during the current school year, he concludes that nearly half (45 percent) of today's seniors have taken no work in this subject field during their high school days. Actually, as we have just seen, virtually all have had either elementary algebra or general mathematics; over two-fifths have taken at least two, nearly a third have been enrolled in at least three, and no fewer than one-sixth will have completed at least four years of mathematics courses.

We see, then, that the *one-year* percentage enrollment figure for a given subject field does *not* tell us what fraction of the students do or do not take work in that subject field during their

four high school years. But even scholars sometimes seem unable to grasp this fact, as the following quotation from a recent book review written by the president of the Council for Basic Education may attest:

"Critics of the high-school curriculum have claimed that only 45 [sic] percent of our high-school pupils take work in mathematics. This claim is countered by Harold C. Hand . . . with the contention that 'only about 5 percent of our high school youngsters are not taking any work in mathematics these days.' Using the same source of information as Hand, Latimer [author of the book being reviewed] finds that the total percentage of students taking mathematics is 55.0."[6]

The scholar who wrote this review does not tell his readers that Latimer's 55 percent enrollment figure is but a *one-year* datum, that for 1949-50 as reported by the U. S. Office of Education. He clearly implies that this one-year datum tells us that about one-half of the pupils take no work in mathematics during their four-year stay in high school. As we have demonstrated both above and elsewhere,[7] this is a grossly misleading myth.

More than this, this scholar did not cite the work from which he quoted the present author's statement that "only about 5 percent of our high school youngsters are not taking any work in mathematics these days." This statement appeared in an article entitled "On Hoodwinking the Public" published in *Illinois Education* in March, 1957 (pp. 266-67) which was reprinted in full by the journals of several other state education associations. Had this work been cited, and had any of Mr. Meyerhoff's readers seen fit to consult it, they would have seen why it is quite wrong to believe that only 55 percent of today's youths take any work in mathematics during their high school careers. This article reproduced the figures reported by the U. S. Office of Education which show, among other things, that the number of pupils enrolled in ninth-grade algebra and general mathematics in 1949-50 was equal to 98 percent of all the youngsters then registered in the ninth grade. Allowing for repeaters and other irregular enrollments, the conclusion was that "only about 5 percent of our high school youngsters are not taking any work in mathematics these days." True, both Mr. Latimer and the present author used the "same source of information," but Mr. Latimer gave only the *one-year* enrollment figure for 1949-50 while the present author factually demonstrated what this 55 percent figure actually means when it is applied to the *four* years that pupils spend in high school.

II

In a interview reported under the quoted title of "We Are Less Educated Than 50 Years Ago," another scholar offered as part of his "proof" of this assertion the following three sentences:

"The figures of the U.S. Office of Education show that in 1900 nearly 84 percent of all American high-school students were taking some science courses. That has dropped to only 54 percent today. In mathematics the drop has been from 86 to 55 percent."[8]

This pro-offered "proof" makes it appear that, in the course of their high

school careers, about 1-3/5's times as many of the pupils took work in science and mathematics in the 1900 era than is true at the present time. The one-year enrollment figures this scholar cited for 1900 and for 1949 are correct, but they are utterly misleading as he employed them, for the resultant comparisons unfavorable to the present-day high school are based on a myth of no small magnitude. Here is this myth:

> The fact that a larger percentage of all high school students were enrolled in courses in a given subject field in the 1900 school year than is true for a single school year today shows that a correspondingly smaller proportion of today's students take that subject during their high school careers than was true in 1900.

To demonstrate that this is in fact a myth, one needs to do little more than to point to the gross differences in the proportion of the total high school student population found at each grade level in 1900 and today. Here are the statistics in question:[9]

	Percentage of Total Student Population Enrolled in Each Grade	
Grade	*1900*	*Today*
9	47	31
10	30	27
11	13	23
12	10	19

Now let us note how identical performances in 1900 and today can result in a very sizeable "drop" in percentage —a "drop" figure, then, that is completely spurious. Let us suppose that but two years of mathematics had been or are being offered in the two eras, and that this work had been or is being required of all 9th and 10th grade students. The resultant enrollment figure for 1900 would be 77 percent; that for today, 58 percent.

Or let us suppose further that but two years of mathematics had been offered and required in 1900 as noted above but that all 9th, 10th, and 11th grade students were to be required to take some course in this subject field today. The resultant percentages would be 77 for 1900, and but 4 percentage points more for today.

These illustrations indicate how naive or unprincipled anyone must be who attempts to discredit the present-day high school by asking the public to accept at their seeming face value the comparative one-year enrollment data for science and mathematics for 1900 and today.

Actually, as the U. S. Office of Education has reported, from 1900 to 1956-57 the enrollments in high school mathematics and science courses increased from 440,000 to 4,401,000 and from 436,000 to 4,043,000, respectively. These are gains of 891 and 827 percent. In 1900 there were 6,152,000 youths of high school age in this country, but only a small handful of these (8 percent) were in school. In 1956-57 the corresponding number was 9,541,000 (an increase of 55 percent as compared with increases in 891 percent and 827 percent in mathematics and science enrollments), and 73 percent of these were attending high school.[10]

When the scholar noted above gave the public to understand that "We Are Less Educated Than 50 Years Ago" he was, of course, referring to all of us then

and to all of us now. He did not, however, tell what proportions of *all* youngsters of high school age then and now were or are enrolled in mathematics and science courses. Instead, he dealt with only the very few (8 percent) who were attending high school in 1900, and compared the enrollments of this little handful of predominately college-bound youngsters with those of the vastly larger number of youths of widely diversified capabilities and interests now in high school. Yet, as we have noted, he did not hesitate to generalize to the total population both then and now. This is a strange kind of logic, to say the least. It is akin to discovering that a few dogs bite mailmen, then concluding that all four-legged animals should be muzzled. As we demonstrated in the preceding paragraph, when the enrollments in mathematics and science are related to the populations connoted in the charge that "We Are Less Educated Than 50 Years Ago," this derogatory assertion is seen to be directly contrary to the facts in the case. We have also seen that the statistical "proof" which was adduced in support of this absurd contention is essentially spurious.

III

In another review by another scholar of the Latimer book already noted, the public was told the following:

> "The yardstick used in this study is the *proportion* of students who have studied a given subject in various key years. This is just. The *importance* of (let us say) mathematics in an educational program is not reflected by the number of math students, but by the *percentage* of the total student population that finds its way into math classes."[11]

This scholar then went on to assert that if this percentage drops, "math has been demoted."

Obviously, there is a condition which necessarily must obtain if it is "just" to say that "the *proportion* of students who have studied a given subject in various key years" is a "just" measure of the importance attached to that subject by those in charge of the high school. This necessary condition is that the total student body in each of the "key years" selected must be comparable in respect to the capacities of its members to succeed in and to benefit from the school subject in question.

To say that the difference in the percentages of the total student populations that are enrolled in (let us also say) mathematics in any given two "key years" is a "just" measure of the "importance" attached to this subject in the two periods under comparison is to assert a myth. In its generalized form, here is this myth:

> Over the years there has been no significant change in respect to the capacities of those who attend high school to succeed in and benefit from any subject in the curriculum.

As we have already noted, "1900" and "today" are "key years" which appear in the literature of scholarly criticism of our public secondary schools. We have also thrice noted that comparative mathematics enrollments are prominent in this scholarly literature. So let us employ the enrollment statistics for a mathematics subject for 1900 and for 1956-57 for purposes of demonstrating the utter absurdity of the myth on which the

claim of "justness" noted above necessarily rests.

The U. S. Office of Education tells us that about 10,000 pupils were enrolled in trigonometry in 1900, and that this was 1.9 percent of the total student population in that year. From the same source, we learn that 200,000 or 2.9 percent of the total student population, were enrolled in this fourth-year mathematics course in 1956-57.[12]

By the "just" criterion proposed, this makes it appear that those in charge of the present-day high school attach only a little more importance to trigonometry than did their counterparts in 1900.

Now, if Dr. Conant is substantially correct in saying that only the academically talented students (he designates these as the top 15 percent) are capable of succeeding in and profiting from trigonometry (see Section VI below), and I believe that he is, the present-day high school population includes a much smaller proportion of youngsters for whom the study of this subject is appropriate than was the case in 1900. We have already noted that only 8 percent of all American youths attended the public high school in 1900 and that some 73 percent do so today, so the following data should afford no surprise:[13]

Of all the	The following proportions were enrolled in high school in	
	1900	1956-57
—14 year olds in the USA	16%	88%
—15 year olds in the USA	10%	81%
—16 year olds in the USA	4%	66%
—17 year olds in the USA	3%	55%

Trigonometry is a 12th grade subject and is ordinarily taken by students who are 17 years of age. It is all but certain that a very substantial majority of that 3 percent of the 17 year old population who were in the 12th grade in 1900 had the capacity to succeed in and benefit from trigonometry, yet fewer than one-fifth of all seniors were so enrolled. This means, of course, that considerably fewer than two-fifths of the seniors for whom trigonometry was appropriate were enrolled in this subject in 1900.

The comparative fraction for today is well over one-half; more nearly three-fifths, in fact. Today, more than half (55 percent) of all the 17 year olds are enrolled in the 12th grade, so scarcely more than a fourth of these seniors have the capacity to master and benefit from trigonometry, while between a sixth and a seventh of all 12th graders are taking this subject.

This increase of no less than 20 percentage points in the proportion of the qualified students enrolled in trigonometry reflects an increase in the importance attached to this subject which is greater than the difference between 1.9 percent and 2.9 percent suggests. We see, then, that the difference between these two small percentages is not a true, and hence not a "just," measure of the increase in the importance which today's schoolmen have attached to trigonometry.

On the supposition, utterly preposterous to anyone who has been in close touch with the public high schools over the years, that there has been no significant change in the capacities of those who attend high school, the report of

the Harvard Committee is instructive, and some at least of our scholarly critics might benefit from reading it more carefully. In speaking of the high schools of the present era, the Committee said this about the "new part" which "the high school has been called on to play":[14]

> "It is, in essence, the incomparably difficult task of meeting, in ways which they severally respect and will respond to, masses of students of every conceivable shade of intelligence, background, means, interest, and expectation."

It should be obvious that there are several high school subjects, of which trigonometry and the other advanced mathematics offerings are but a few, which are anything but well suited to all those among the "masses of students of every conceivable shade of intelligence" who now attend high school. It is quite contrary to fact to suppose otherwise. Yet this is precisely the myth on which the "just" criterion proposed by the scholar noted above is necessarily based.

This "just" criterion is also subject to another fatal defect. As we demonstrated in Section II above, if all the students in 1900 and today had been or were to be required to take two years of required work in a subject field in grades 9 and 10, the resultant "percentages of the total student population" so enrolled would be 77 for 1900 and 58 for the present time. Although the importance attached to this subject would be identical in that all pupils either were or are required to take it for a period of two years, the application of the "just" criterion proposed would tell the public that there had been a "drop" of 19 percentage points, and that by so much this subject had been "demoted" by the schoolmen of the present era.

This "just" criterion has repeatedly been employed by scholarly critics, and the spurious results it affords have been widely disseminated through the popular press by them. However innocently this may have been done, the effect has been to hoodwink the public and to give the present-day high school an undeserved black eye.

IV

Because the publication in which it was set forth by a scholar as a statement of fact is one of the most widely read in this country, the myth which is fourth on our list has been widely circulated. Reference here is to the opening paragraph in the first of *Life's* recent series of articles on the public high school.[15] Here is the fiction in question:

> Only one-eighth of all present-day high school students are taking any mathematics course more advanced than algebra.

The presumption is that by "algebra" was meant the algebra that is taught in the 9th grade. This, we can be sure, is what this statement was taken to mean by the generality of *Life's* readers. More than this, we can also be certain that this generality of readers also understood the statement to mean that some seven-eighths of today's high school students take no mathematics beyond 9th grade algebra at any time during their high school careers.

In presenting this startling figure the scholar who wrote the article said that it

was "dreadful to look at." It is indeed "dreadful" to contemplate when one who knows how far from the truth *Life's* 12½ percent figure is reflects on how badly the public is being hoodwinked by it.

Now let us go to the most recent report of the U. S. Office of Education for the official data which show how badly *Life's* readers were hoodwinked.[16]

The U. S. Office of Education reports that the enrollment for the school year of 1956-57 in the mathematics courses more advanced than 9th grade algebra (plane geometry, intermediate algebra, solid geometry, trigonometry) totalled 1,632,000 students.

Life asserts that only one-eighth of all high school students are enrolled in these more advanced courses. If this is true, then the total high school enrollment in 1956-57 must have been 8 times 1,632,000, or 13,056,000 students.

The U. S. Office of Education gives the total high school enrollment for 1956-57 as 6,963,000 students. This true figure is only a little more than half that which the application of *Life's* fiction gives us. This tells us that the true percentage figure is nearly double that asserted by *Life*. As anyone can readily compute, the true proportion is 23.4 percent.

This is a one-year enrollment figure, that for 1956-57, it should be remembered. As we saw in our analysis of the first of the myths scrutinized above (see Section I), this does *not* tell us what percentage of today's high school pupils take one or more courses beyond 9th grade algebra during their four years in high school.

The U. S. Office of Education tells us what these figures are. As we have already noted, it reports that the numbers of students enrolled in plane geometry, intermediate algebra, solid geometry, and trigonometry are respectively equivlent to 42, 32, 13, and 16 percent of the numbers enrolled in the 10th (plane geometry), 11th (intermediate algebra), and 12th grade (solid geometry, trigonometry). About two-fifths (42 percent), then, rather than but one-eighth, of our high school students take some course more advanced than 9th grade algebra during their high school careers.

I have been told on good authority that a member of *Life's* staff has claimed that "by any mathematics more advanced than algebra" the intent was to include only those subjects more advanced than 11th grade intermediate algebra; namely, solid geometry and trigonometry.

This is difficult for me to believe, for it smells to high heaven of trickery. Any editorial staff as conversant with the mind of the public as the editors of *Life* must quite certainly be knows that the generality of the public would not take the word "algebra" to mean the advanced "intermediate algebra" course taught in the junior year of high school.

But even if, as I do not believe was the case, *Life* intended to connote only the solid geometry and trigonometry courses to which 9th grade algebra, 10th grade plane geometry, and 11th grade intermediate algebra are prerequisites, its 12½ percent figure is still a fiction. The U. S. Office of Education reports that the enrollments in solid geometry and trigonometry for 1956-57 totalled 360,000 students. If this be one-eighth

of all the students, it follows that the total high school enrollment in 1956-57 was 8 times 360,000, or but 2,880,000 students. We have already seen that the true figure is 6,963,000, which is about 2½ times greater.

It can be objected, of course, that all or nearly all of the 160,000 students who took solid geometry might possibly be included within the 200,000 who were enrolled in trigonometry the following semester of their senior year. If this be true, *Life* in effect told the public that the total high school enrollment is but 1,600,000 students.

As we hope we made clear in our analysis of the first myth treated above (see Section I), there are two ways in which the enrollment in a given subject may be computed. One is to divide the number enrolled in (let us say) 9th grade algebra by the number of pupils enrolled in all four years of the high school. By this method we get the figure of 22 percent for the 1956-57 school year. The other way is to divide the number enrolled in 9th grade algebra by the total number of pupils found in the 9th grade. This method yields the figure of 67 percent.

It should be obvious that anyone who (a) knows what he is doing and (b) wishes not to confuse or to mislead his readers would avoid presenting percentages thus differently derived as though they were indeed comparable.

This *Life* did not avoid. Here is that part of the opening paragraph in which the percentages that *Life* said were "dreadful to look at" were presented:

"Only 12½% [of American high school students] are taking any mathematics more advanced than algebra, and only 25% are studying physics. A foreign language is studied by fewer than 15% of the students."[17]

We have already seen that *Life's* 12½ percent figure cannot be derived by either of the two methods noted. Its 25 percent figure for physics is approximately what one gets (24.3 percent) when he divides the number of 12th grade pupils by the number enrolled in this subject; this is the second method indicated above. *Life's* 15 percent figure is approximately what results (14 percent) when one divides the total number of students enrolled in all foreign languages except Latin by the total number of youngsters found in all four years of the high school; this is the first method noted above. If Latin is included, the figure yielded by this method is 22 instead of 14 percent.

V

The fifth myth on our list is another that has been disseminated by a scholar through the popular press. In a post-Sputnik interview published in *U. S. News & World Report* the opening question asked of this gentleman was of the "Have you stopped beating your wife?" variety; "What went wrong in our schools?" was the query. The scholar's reply was this: "The basic trouble is that the persons running our public school system lost sight of the main purpose of education—namely, intellectual training."[19]

On the same page this scholar tells when this alleged betrayal took place. "The professional educationists," he

said, "jumped the rails a quarter of a century or so ago."

This would fix the beginning date of the averred dereliction at about 1930.

"Now," he went on to say, "We are paying the price of a 'soft' educational policy." "We are," he said, "dangerously short of men and women with thorough and rigorous training in science and mathematics and other fundamental fields."[20]

When he said "men and women," this gentleman was, of course, referring to the total adult population in this country. Too few of all our adults have thorough and rigorous training in science and mathematics, he charges, because the professional educationists jumped the rails about 1930 in the sense that they then began to neglect the teaching of science and mathematics.

This is a myth. Here is how it may be stated:

> Since about 1930 progressively fewer of all the youths in this country have taken the advanced courses in high school mathematics and science which later enable them to do thorough and rigorous college work in these subjects.

Now let us go to the report of the U. S. Office of Education for 1928-29,[21] a year or so before the professional educationists were supposed to have jumped the rails, to see what percentages of all the youths of high school age in America were then enrolled in plane geometry, intermediate algebra, trigonometry, chemistry, and physics.* Then let us consult the 1956-57 report of the U. S. Office of Education[22] to see what percentages of all the American youths are enrolled in these same subjects today.

Plane geometry is a 10th grade subject and the typical age of 10th grade pupils is 15 years. In 1928-29 there were 2,342,000 youths of age 15 in this country. Of all these 15 year olds, 476,000, or about 20 percent, were enrolled in plane geometry. Today there are 2,393,000 15-year-old youngsters in this country, 788,000 of whom, or about 33 percent, are taking plane geometry. The comparative percentages for this subject, then, are 20 percent for 1928-29 and 33 percent for today.

Intermediate algebra is an 11th grade subject and the youngsters at this grade level are typically 16 years old. There were 2,245,000 youths of this age in this country in 1928-29. Of this total age group, 246,000, or 11 percent, were enrolled in intermediate algebra. We have a total of 2,292,000 boys and girls of this age in the U.S.A. today, and 484,000, or about 21 percent, are taking intermediate algebra. The comparative figures for 1928-29 and for today, then, are 11 percent and 21 percent.

Trigonometry is taught to 12th grade students. These are the 17 year olds. The total number of 17 year olds in 1928-29 was 2,252,000, of whom 37,000 or about 1 percent, were enrolled in trigonometry. Now the total number of 17 year olds is 2,300,000 and 200,000, or about 9 percent, of these youths are taking trigonometry. The comparative figures for trigonometry, then, are about 1 percent for 1928-29 and about 9 percent for today.

* I leave solid geometry out of my reckoning here because competent mathematicians tell us this subject could be merged with plane geometry, hence that it should disappear as a separate subject in the curriculum.

Chemistry is taught in the 11th grade. We have already noted what the total number of 16 year olds in this country was in 1928-29, and what it is today. In 1928-29, the enrollment in chemistry was 205,000; today, this enrollment is 520,000. The comparative figures for chemistry, then, are about 9 percent for 1928-29 and about 23 percent today.

Finally, we come to physics, a 12th grade subject. We have already seen how many youngsters of 12th grade age there were in 1928-29, and how many there are today. In 1928-29, the enrollment in physics was 198,000; today it stands at 310,000. The comparative figures for physics, then, are about 9 percent for 1928-29 and about 14 percent for the present time.

These comparative figures all favor the present-day high school—by 1½ to 1 for plane geometry and physics, by about 2 to 1 for intermediate algebra, by 2½ to 1 for chemistry, and by over 5 to 1 for trigonometry.

These ratios show how badly the public was bamboozled if it was led to believe that whatever shortages there may now be of men and women with thorough and rigorous college training in mathematics and science came about because proportionally fewer of all our youths are being trained in advanced high-school mathematics and science courses today than was the case a quarter of a century or so ago.

I have analyzed still further the preposterous charge that the "professional educationists jumped the rails," but this is reported in another publication[23] which the reader can easily consult, so I shall turn now to the next myth with which I want to deal here.

VI

It will be recalled that in the "Carnival" piece *Life* said that "only 25 percent [of the high school students] are studying physics," and that this fact is "dreadful to look at." If *Life* has any idea of how its 25 percent figure was derived, this can only mean that *Life* would have the public believe that a proportion much larger than 25 percent of the 12th grade students should be enrolled in physics. This is but a special case of the sixth among the myths dealt with in this paper. Here is how this myth might perhaps best be stated:

> Much larger proportions of the high school students should be taking the advanced courses in mathematics and science than are now enrolled in them.

By the more advanced courses in mathematics and science is meant plane geometry, intermediate algebra, trigonometry, chemistry, and physics. I have indicated earlier why I leave solid geometry out of my reckoning here.

Now, what is to be our criterion for judging whether or not much larger proportions of the high school students should be enrolled in plane geometry, intermediate algebra, trigonometry, chemistry, and physics? In other words, what percentage of the students are capable of succeeding in, and of profiting both themselves and society by taking, these subjects?

I know of but one man among the relatively few who are really competent to answer this question who has given us a specific figure. He is Dr. James B. Conant—world-renowned scientist, former head of the department of chemistry and later president of Harvard

University, and currently serving his second term on the Educational Policies Commission—who is now engaged in conducting a study of the American high school under a grant from the Carnegie Foundation for the Advancement of Teaching.

This study is now in its second, and I believe final, year. It is no armchair or ivory tower proposition. Instead, Dr. Conant has made extensive visits to numerous high schools in many parts of the country. By the end of the winter of 1957-58, he had sat in classes in more than 45 widely-scattered high schools, conferred with over 500 high school pupils, and exchanged views in face-to-face situations with more than 1,500 high school teachers. He has made a careful study of the vast range of individual differences everywhere found among the pupils attending our typical high schools—differences, as every reader of this journal undoubtedly knows, which range from 4 or 5 to as high as 13 years in a single high school grade.

Dr. Conant is not only fully cognizant of the fact that the public secondary school is obligated to serve equally well all the youths of the community; he is fully committed to this great principle.

In public addresses given during the winter and spring of 1957-58 Dr. Conant has set forth certain views that especially concern us here. For general education purposes, he would have the high school require four years of English, three or four years of history or other social studies, at least a year each of mathematics and science, and some unstipulated amount of physical education; in addition, he would have all pupils urged to take at least one year of art or music.[24]

The remainder of a youngster's program, Dr. Conant says, "should be, if possible, related to the pupil's ambitions beyond high school. He or she should have a vocational goal in mind. And for certain pupils this goal should be a professional one requiring as the next step a college education."[25] He urges us not to be afraid to use the term vocational education "to include the specialized work of all the youth who have some career in mind, including those who are headed for college whose ultimate vocation may require more years of formal study than does that of their schoolmates who are working in the [school's] shops."[26]

It is in what Dr. Conant has to say about the vocational education program of the college-bound high-school students that we find the criterion we are seeking:

> "For the welfare of our citizens, for the preservation of our freedom, for the maintenance of our highly industrialized society, many men and women are required with highly specialized skills that are the result of long years of formal education. This is a new development, hardly half a century old, in some respects only a decade old. A hundred years ago, the professional men, the lawyers and the doctors, could be trained as apprentices with only a minimum of formal schooling. Today, medical men require a minimum of twenty years of full-time schooling; engineers, eighteen; and research scientists, twenty-two. *And only those with certain kinds of ability can hope to complete these arduous academic labors.*

Those who can, I shall designate as the academically talented. *They compose about 15% of the high school population on a national basis* [italics mine]. They are the boys and girls who can study effectively and rewardingly tough courses in mathematics, science, and foreign languages. . . . These students on graduation ought to have studied the following: four years of English, three or four years of history together with other social studies, at least three years of mathematics, at least two years of science, three years of one foreign language, and either another year of mathematics and a tough physics course or three years of a second foreign language."[27]

This, then, is our criterion: "About 15 percent of the high school population on a national basis."

Now let us apply this criterion to the latest enrollment figures for plane geometry, intermediate algebra, trigonometry, chemistry, and physics[28]—the subjects in which certain highly vocal critics would have the public believe that much larger percentages of our high school students should be enrolled.

Plane geometry is a 10th grade subject. There are 1,933,000 10th grade pupils in this country. Of all these 10th grade youngsters, 788,000, or 42 percent, are enrolled in plane geometry. But this 42 percent figure is quite misleading because many more boys than girls take plane geometry, so we must compute the enrollment figure separately for each sex.

Of the 1,933,000 10th grade pupils in this country 49 percent, or 947,000, are boys, and 51 percent, or 986,000, are girls.

Of the 788,000 10th grade students who are enrolled in plane geometry, 59 percent, or 465,000, are boys, and 41 percent, or 323,000, are girls.

Of all the 10th grade boys in this country, then, 49 percent are enrolled in plane geometry. The corresponding figure for all the 10th grade girls is 33 percent. Even if we were to double the criterion figure of "About 15 percent of the high school population on a national basis," it would seem that there are a great many boys, but probably relatively few girls, now taking plane geometry who do not have the capacity to do really rigorous work in that subject. It should perhaps be noted here that Dr. Conant recommends that not more than half of the entering high school pupils be advised to enroll in elementary algebra.[29]

Intermediate algebra is an 11th grade subject. The total number of pupils in this grade is 1,513,000. Of these, 741,000 are boys and 772,000 are girls. Of all the 11th grade students, 484,000 are taking intermediate algebra; 62 percent, or 300,000, of these enrollees are boys; 38 percent, or 184,000, are girls. Of all the 11th grade boys in this country, then, 40 percent are taking intermediate algebra. Of all the 11th grade girls, 24 percent are so enrolled. Since our criterion figure is 15 percent on a national basis, it seems apparent that many girls and a great many boys who lack the capacity to succeed in a really rigorous course in intermediate algebra are enrolled in this subject.

Trigonometry is taught in the 12th grade. The total number of 12th grade pupils in this country is 1,263,000, of whom 619,000 are boys and 644,000

are girls. The total enrollment in trigonometry is 200,000; of these enrollees, 158,000 are boys and 42,000 are girls. This means that 26 percent of all the 12th grade boys, but only about 7 percent of all the 12th grade girls, are taking trigonometry. Since our criterion figure is about 15 percent, it seems clear that a goodly number of boys who do not have the capacity to cope successfully with really rigorous work in trigonometry are enrolled in this subject.

But what is one to say about the 7 percent enrollment figure for girls? Should appreciably more girls be taking trigonometry? As Dr. Conant reminds us, it serves as a vocational subject for those who intend to enter some profession for which some or much training in college-level mathematics is necessary. The 7 percent figure should be higher, then, if more than about this proportion of the college-bound girls should be guided into such vocations. My guess is that more girls should be so guided, but how many more I do not know.

This brings us to our consideration of the enrollment statistics for the advanced courses in science. Chemistry is an 11th grade subject. We have already taken note of how many pupils of each sex there are at this grade level the country over. There are 520,000 students enrolled in chemistry; 302,000 are boys, and 218,000 are girls. This means, then, that 41 percent of all the 11th grade boys and 28 percent of the 11th grade girls are now taking chemistry. These percentages are from about two to nearly three times greater than our criterion figure. Many girls and a great many boys, then, who lack what it takes to do rigorous work in chemistry are now taking this subject.

Finally, we come to physics, a 12th grade subject. The enrollment in this subject is 310,000 students; 242,000 boys, and 68,000 girls. We find, then, that 39 percent of all the 12th grade boys and 11 percent of all the 12th grade girls in this country are now enrolled in physics. Observations similar to those already offered for trigonometry seem warranted here.

In my analysis of the enrollment statistics for the present time in intermediate algebra, trigonometry, chemistry, and physics, I have been faithful to the criterion implied by Dr. Conant's assertion that only about 15 percent of the *high school population* on a national basis has the capacity to do really rigorous work in these advanced subjects. Suppose, however, that we were to re-do our computations on the basis of all the 15 year olds in this country (regardless of whether or not they are attending high school) instead of all the 10th grade pupils, all the 16 year olds in the United States instead of all the students found in the 11th grade, and all the 17 year olds instead of all the boys and girls enrolled in the senior year of high school?

I have performed these computations, and here is what I find:[30]

Plane geometry

40% of all the 15-year-old boys in the U.S.A. are enrolled in this subject.

26% of all the 15-year-old girls in the U.S.A. are enrolled in this subject.

Intermediate algebra

27% of all the 16-year-old boys in the U.S.A. are enrolled in this subject.

16% of all the 16-year-old girls in the U.S.A. are enrolled in this subject.

Trigonometry

14% of all the 17-year-old boys in the U.S.A. are enrolled in this subject.

4% of all the 17-year-old girls in the U.S.A. are enrolled in this subject.

Chemistry

27% of all the 16-year-old boys in the U.S.A. are enrolled in this subject.

19% of all the 16-year-old girls in the U.S.A. are enrolled in this subject.

Physics

21% of all the 17-year-old boys in the U.S.A. are enrolled in this subject.

6% of all the 17-year-old girls in the U.S.A. are enrolled in this subject.

However we relate the enrollment statistics, then, we see that the public is being hoodwinked when it is given to understand that the high school has fallen down on the job because much larger percentages of the pupils are not enrolled in the advanced mathematics and science courses. We have seen that the enrollment figures for boys is in every instance either approximately equal to (trigonometry) or very much above (intermediate algebra, chemistry, physics) the criterion figure set forth by Dr. Conant; except in trigonometry and physics, the percentages of girls enrolled also exceed this criterion figure.

There is an important question which these enrollment statistics leave unanswered, however. They tell us, for example, that 27 percent of all the 17-year-old boys in this country are taking chemistry, but what we do not know is how many of the lads in the top 15 percent of the IQ distribution are included within this 27 percent enrollment figure. There is a strong presumption that the overwhelming majority are so included, but we should not rest content until we know what the facts in the case really are. The State Department of Education in Illinois is cooperating with Dr. Conant in conducting a simple study in the high schools of our state which will shed considerable light on this question. This study employs a simple analytical device which makes it more easily possible for school authorities to take stock of what is going on in the *local* high school in the respect just noted. This is important, for, with the kind and amount of local control of public education that we have in this country, it is only as the local high schools, one by one, see fit to take whatever if any action that may be needed that whatever if any gaps there may be in the programs of study taken by the academically talented students can possibly be remedied.

In implying if not flatly asserting that much larger percentages of students should be enrolled in the advanced

mathematics and science courses, the critics have been engaged in the dubious business of giving the public high school an undeserved black eye; except possibly for girls in respect to physics and trigonometry, the real problem is not to enroll more students in these courses, but to see to it that those, and only those, who have the capacity to succeed in and benefit from these rigorous advanced subjects are strongly encouraged to take them. These critics have capitalized upon the near-hysteria induced by the Russian Sputniks in what gives the appearance of being attempts to undermine the confidence of the public in its public schools. Let us hear the president of the University of Rhode Island on this point:

"One of the things that disturbs me very much is this matter of the implications of Sputnik for our educational system. We've been hysterical in our reactions. We are looking for a scapegoat and we blame the schools—all levels of education for the most part, but especially the high schools. . . .

"Now, what are the facts in the case? In the first place, we didn't fail to put up a Sputnik because we lack the requisite technical knowledge. We had all the technical knowledge we needed. Where we failed in the Sputnik matter is a failure on the part of America, a failure on the part of our decision-makers. We underestimated the Russians. Our failure was because we didn't understand enough about the Russians; it was a failure in the field of the humanities, and the social sciences, if you will. If we had put all our engineers into one bucket . . . and had assigned them to rockets, interballistic missiles, and balloons, we could have had the moon. . . .

". . . It is being said that the colleges haven't turned out enough scientists, enough engineers. Almost three-fifths of all our doctor's degrees—at the last time the data were published—were in the sciences. Fifty-seven per cent of all our financial assistance to graduate students is in the sciences. One out of every seven male students, who is in college today, is in engineering."[31]

VII

On the same point, President Virgil M. Hancher has said "Russia has launched a satellite, and the schools and colleges of the United States became the scapegoat for an adult generation's own feeling of inadequacy. That generation, being unwilling to face its own inadequacies, turned its anger loose upon the schools. . . . In the midst of all this search for a scapegoat, someone needs to tell the blunt and bitter truth: If ANY schools and colleges are responsible for the present crisis, it is the schools and colleges of 20 and 40 years ago—the very schools so often cited as models of what we should return to today."[32]

As Dean George D. Stoddard sees it, "The American people are suddenly afraid; they seek a scapegoat. What the Jews were to the vengeful Nazis, the teachers are now in the United States to a powerful clique that guessed wrong."

In the same article in which the public was told that the professional educationists had jumped the rails about a quarter of a century ago, much was made of the report that the graduates of the Russian secondary school have had 5 years of physics, 4 years of chemistry, 10 years of mathematics, and so on. The scholar who was interviewed proposed

that citizens "demand" of the local superintendent or principal that he tell how many of last spring's graduates had completed the same number of years of work in these subjects. "And remember," he said, "that the Russians take 10 years for their program, whereas we take 12."[34]

This clearly implies that, timewise, "a year of mathematics," "a year of chemistry," or "a year of physics" means about the same thing here that it does in Russia. It also clearly implies that our 12-year plan affords more time in school than the Russian 10-year plan does.

All these suppositions are myths. The generalized statement of these myths is this:

In respect to the number of clock hours per year involved, and the subjects offered, the school terms found in the USA and the USSR are comparable.

In our country, "a year of mathematics" in high school means 5 hours per week for at least 36 weeks—with a class hour being not less than 45 minutes, which is the standard class hour in the USSR. In Russia, "a year of mathematics" means, on the average, 2 hours per week when computed on our basis of 36 weeks.

With us a "year" of laboratory science, be it chemistry or physics, means 7 hours per week for at least 36 weeks. When computed on our basis of 36 weeks, "a year of chemistry" in Russia means 2½ hours per week, and "a year of physics" in a Russian school means 3⅓ hours per week.

Russian pupils attend school 6 days a week for at least 10 months. A student who completes their 10 year school system receives a total of 10,742 hours of schooling. This is 32 more than the 10,710 hours of schooling that the graduates of our 12 year system receive.[35]

Much of what the Russians teach under the label of chemistry or physics, we teach under some other label. For a careful comparison of what is taught, subject by subject, in the USSR and in the state of Florida, see the monograph just published by the State Department of Education in Tallahassee entitled *For Florida's Children . . . Florida Education or Soviet Training?* And for a revealing eye-witness account of what is going on in the Russian secondary schools that he visited, see the series of articles that Professor William W. Brickman had in *The Chicago American* beginning on Sunday, April 13, 1958 and concluding Thursday, April 17. The editor captioned the last article thus "Soviet School Superiority Branded a Myth."

VIII

In the same interview in which the public was advised to "demand" of the local superintendent or principal how many of last spring's graduates had completed the same number of years of chemistry, physics, and mathematics that the graduates of the Russian secondary school are said to complete, still another myth was voiced.

"We have wasted an appalling part of the time of our young people on trivialities," the scholar who was interviewed said. "The Russians have had sense enough not to do so. That's why the

first satellite bears the label 'Made in Russia'," he continued.[36]

This "explanation" is something less than valid, for it is based on a myth which is preposterous on its face. Here is the myth that necessarily underlies the said scholar's faulty perception of "why the first satellite bears the label 'Made in Russia' ":

> The first satellite was designed, fabricated, and launched into space by Russian children who were but 13 or 14 years old.

Now, let's see how this works out. Until about 1935 the Russian schools encouraged a species and degree of pupil "freedom" more extreme than even its unfairest critics have claimed was true of any school in this country. During the 1940's, under the fourth 5-year plan, there was none of this, but the Russian schools were loaded with trivialities of the most vicious sort—trivialities which interfered with good teaching at every turn. Here is an authoritative description of what took place by official decree:

> "During these years of the fourth 5-year plan, the intensified subordination of education to the aims of the Communist Party took the following form:
>
> "(1) The inculcation of patriotism was the first and foremost task of teachers. This was interpreted as narrow nationalism which demanded 'fanatical loyalty to the regime and unmitigated antagonism to the outside world.'
>
> "(2) Teachers were required to show Soviet and Russian achievements as superior to Western achievements in science, art, literature, and culture in general.
>
> "(3) . . .
>
> "(4) The glorification of Stalin as the leader of genius to whom the Soviet people owed all its success became of paramount importance in teaching. Student isolation from general information about foreign cultures and peoples was carried to extremes. Information was omitted, slanted, distorted."[37]

This was remedied when the fifth 5-year plan was put into effect, but this did not happen until 1951. It is since 1951, then, that "the Russians have had sense enough" not to load their schools with trivialities. Russian children begin school at age seven. The youngsters who began school in 1951, then, were but 13 or 14 years old, and still three or four years short of high school graduation, when the first Sputnik roared into space in 1957.

On the point here under discussion the Educational Policies Commission recently said that "The Soviet scientists who have succeeded in placing a satellite in an orbit are in few cases products of the Soviet school system now operating. Many of them, in fact, received their education elsewhere than in the Soviet Union."[38]

The scholar who gave the public the accusatory "explanation" noted above is an historian; he would apparently have the public believe that the Russian educational system has been shown to be quite superior to the American educational system so far as the production of top-flight scientists is concerned. The editor of the *Bulletin of the Atomic Scientists,* however, seems to hold quite a different view. This renowned scientist has recently observed that "Only one Nobel prize has gone to Russia since the Revolution. . . . During the same period, 47 have been awarded to America (including several that went to European

scientists established in America after 1934).... It may be argued that Soviet education, however well it prepares a future scientist or engineer for competent work in his field in research or industry, is not very conducive to awakening his mind for the unorthodox, fearless, critical thinking, which is required for really epochal discoveries (e.g., evolution, relativity quantum theory)."[39]

IX

I have reserved for the last what I regard as the most vicious of the many myths which bedevil the schoolmen today. Here is this myth:

A single rigorous standard of achievement can be enforced at any grade level in the public school system with educationally desirable results.

With the happy exception of Dr. Conant and a very few others, the presupposition expressed in this myth is implied as the truth by the more vocal of the academicians who are concerning themselves with the public schools, and especially the public high schools, these days. This finds a ready acceptance by many if not most elements of the public, for, of course, everybody is in favor of "high standards."

In my judgment, every public school faculty should take pains to make clear to its public what the range in the educationally significant differences among its pupils are. What the staff of Evanston Township High School in Illinois has done in this respect is a good example here. These good people recently studied the members of an entering 9th grade class with the following results:[40]

The 540 youngsters in this group ranged

—in chronological age, and hence in social development for the most part, from age 11 to age 15.
—in height from that typical of 4th grade children to that characteristic of high school seniors.
—in mental age from that ordinarily found among 3rd grade pupils to that characteristic of college freshmen.
—in achievement in reading from the level typical of 5th grade children to that ordinarily found among high school seniors.
—in achievement in other aspects of English, the same range as for reading.
—in achievement in mathematics from the level usually found among 4th grade youngsters to that typical of students in the last year of high school.

Nobody in his right mind who knows about this range of individual differences would risk losing face by arguing that there is any point on the scale at which a pass-or-fail determination could be made for these 540 youths without either (a) committing the less able to certain failure no matter how hard they might work or (b) running the almost certain risk of making "academic bums" out of the more capable among them.

It also seems to me that every school faculty should dig up and publicize locally what the results actually were in the "good old days" when the enforcement of a single set standard was attempted. Here is what Dr. Cubberley and his associates found in Portland, Oregon, in their 1913 survey of the public schools in that city—schools in which a single set standard was enforced in each grade:[41]

—Many 15 year olds were found in the 1st grade; they were in their tenth year in that grade.
—264 children aged 11 to 18 years were found in the 3rd grade, along with 112 who were but 6 or 7 years old.
—385 youths aged 12 to 18 were incarcerated in the 4th grade, where 291 children who were 7 or 8 years old were found.
—Only one-third of the pupils ever got as far as the 8th grade.
—Only 11% ever entered high school.
—Only 5% ever completed high school.

It is a cardinal principle with me, and with all the public schoolmen that I know, and with the overwhelming majority of the lay citizens with whom I've been associated, that the public school is morally obligated to suit itself, its program, and its requirements to the human materials that the community sends to it. This means plural standards, among other things.

There are some if not many laymen who support the academic critics who would have us turn back the clock a la Portland circa 1913 by setting a fixed standard at each grade level. In my judgment, nearly all of these laymen go along with this utterly vicious proposal only because, like most of the critics who urge a return to this barbaric practice, they are innocent of any competent knowledge of the facts of individual differences in the schools in their community. As I have previously said, it is our business to make the facts about these differences known.

I am for high standards—but, for the youngsters at each of several levels of capacity, standards that are both *high for them* and *possible of achievement by them.*

To me it is utterly immoral for the state to require a child to attend a school where he is certain to be branded as a failure no matter if he gives his all. And it is but little less immoral to fail to stretch the youngsters of high capabilities to the utmost of their capacities by the standards that are set for them.

References

1. Arthur Bestor, "We Are Less Educated Than 50 Years Ago," *U. S. News & World Report*, November 30, 1956, p. 68.
2. Howard A. Meyerhoff, Book Review, *Science*, May 9, 1958, p. 110.
3. U. S. Office of Education, *Offerings and Enrollments in Science and Mathematics*, 1956, p. 44.
4. *Ibid.*, p. 12.
5. *Ibid.*, p. 44.
6. Meyerhoff, *op. cit.*, p. 110.
7. Harold C. Hand, "Black Horses Eat More Than White Horses," *Bulletin of the AAUP*, Summer, 1957, pp. 266-279.
8. Bestor, *op. cit.*, p. 68.
9. For the derivation of these statistics see Harold C. Hand, "On the Anatomy of Myths," *Bulletin of the NASSP*, March, 1958, pp. 93-96.
10. U. S. Office of Education, *Statistical Summary of Education, 1949-50*, pp. 22-3.
    ———, *Offerings and Enrollments in Science and Mathematics, 1956*, p. 44.
11. Harold L. Clapp, Book Review, *CBE Bulletin*, April, 1958, p. 10.
12. See Reference 10 (both items).
13. For the derivation of these data, see Harold C. Hand, "A Scholar's Devil Theory," *High School Journal*, April, 1958, pp. 270-86. The NEA Defense Commission has ordered several thousand copies of reprints of this article for distribution, presumably at cost, to interested persons.
14. Harvard Committee, *General Education in a Free Society*, Harvard University Press, 1945, p. 9.
15. Sloan Wilson, "It's Time to Close Our Carnival," *Life*, March 24, 1958, p. 36.
16. U. S. Office of Education, *Offerings and Enrollments in Science and Mathematics, 1956*, pp. 44, 31, 33.
17. Wilson, *op. cit.*, p. 36.

18. Arthur Bestor, "What Went Wrong With U. S. Schools," *U. S. News and World Report*, January 24, 1958, pp. 68-77.
19. *Ibid.*, p. 68.
20. *Ibid.*, p. 68.
21. U. S. Office of Education, *Statistical Summary of Education*, 1949-50, pp. 22-3.
22. U. S. Office of Education, *Offerings and Enrollments in Science and Mathematics*, 1956, p. 44.
23. See Reference 13.
24. James B. Conant, "Some Problems of the American High School: A Preliminary Report of a Study," a mimeographed manuscript of an address given before the National School Boards Association in Miami Beach, Florida, April 18, 1958. Available on request from the author at 588 Fifth Avenue, New York 36, N.Y., p. 6.
25. *Ibid.*, pp. 6-7.
26. James B. Conant, "The Public High School and the National Interest," *Bulletin of the NASSP*, April, 1958, p. 347.
27. James B. Conant, "Some Problems of the American High School: A Preliminary Report of a Study," p. 7.
28. U. S. Office of Education, *Offerings and Enrollments in Science and Mathematics, 1956*, pp. 44, 12, 31, 32.
29. Conant, "The Public High School and the National Interest," p. 346.
30. For a more extended analysis, see Harold C. Hand, "A Scholar's Devil Theory," *High School Journal*, April, 1958, pp. 270-86.
31. Francis H. Horn, excerpt from address given at Pere Marquette State Park, December 12, 1957. Recorded on tape on file in the Headquarters of the Illinois Currriculum Program, 204 Gregory Hall, University of Illinois.
32. Virgil M. Hancher, "Questing Desire to Know," *NEA Journal*, April, 1958, p. 217.
33. George D. Stoddard, "The Issues that Divide Us," *School and Society*, May 24, 1958, pp. 236-7.
34. See Reference 18 above, p. 71.
35. U. S. Office of Education, *Education in the USSR*, U. S. Government Printing Office, 1957, pp. 60-71.
36. See Reference 18, p. 69.
37. U. S. Office of Education, *Education in the USSR*, p. 55.
38. *The Contemporary Challenge to American Education*, National Education Association, 1958, p. 20.
39. Eugene Rabinowitch, "After Missiles and Satellites, What?", *Bulletin of the Atomic Scientists*, December, 1957.
40. Illinois Curriculum Program, *The Nature of the School Population in the State of Illinois*, Office of Superintendent of Public Instruction, Springfield, 1955, p. 19.
41. The Portland *Oregonian*, Monday, June 5, 1950, p. 10.

Democracy is the worst form of government except all those other forms that have been tried from time to time.—SIR WINSTON CHURCHILL

The Dress of Autumn

Jane Stuart

Autumn's hair is sun-splotched chestnut brown
That waves like trees in peaceful drowsy winds.
Her lips are stained from ripened Summer berries.
She walks alone; her beauty has no kin.
Her skin is browned by golden rays of sunlight
that turn to jewels when they touch her face;
then fall down to the ground soft from her footsteps
and give the earth a quiet Autumn grace.
Her skirt is of blue velvet, decked with silver-sequined stars
and trimmed with lacy, filmy Autumn moons,
etched with the grayness of the sleeping hills,
soft as the fur of Autumn's sleeping coons.
Her blouse is spatter-painted with the colors of the trees
and gathered like the early Autumn flowers.
Her bare feet press beneath her dwarfed, forgotten Summer leaves
and blades of grass wet from dewy showers.
Those feet trod over Summer's cruel briers
and trip; but always rise to walk again.
Her emerald eyes watch sadly as the Autumn starts to fade.
Then cold feet lead her to her waiting grave.

This Thing Called Evaluation

MAX MARSHALL

AT LONG LAST an opportunity is presented to speak with official sanction about an experiment I have been conducting for more than twenty-five years. After some ten of these years I suggested to one of our Deans that my experiment might be worth reporting at a meeting of his faculty. He quickly produced several excuses and I never made my report. After all, there is only one way to treat enthusiastic researchers and persons with hobbies: you can run, develop a headache, or have an appointment, but at all costs escape. In this experiment my test tubes were students, my condensers were administrators, and my retorts—well, they were many. The subject of my experiment is controversial. To many administrators and some old-time teachers the subject is not only controversial; it is threadbare and more windy than productive. However, its ramifications have interesting angles.

I

Unlike most modern investigations, this one did not begin with a large grant of money. It was only an unorthodox part of the day's teaching, demanding only a change in method and viewpoint. This should commend it to the attention of administrators. We who teach all know the importance of the interest and approval of our beloved administrators, so I rush to say that what I discuss here involves no expensive program, and that, though the subject is controversial, it will be so regardless. Students have been in favor of the experiment all the way, but something may have to be done with some of my fellow teachers. However, not only are all of them accustomed to the collegiate version of the slings and arrows of outrageous fortune, but they will argue about something anyway. Professors have been aptly characterized as persons who instinctively take the other side on all issues. But let us get on with an objective description of the experiment. I use the word "objective" loosely, as though it had reality, which of course it does not.

In 1930 we had a class of medical students for a course of eight credits or units of microbiology. A unit expresses a fragment of time and energy which students and teachers spend in the educational process. It is usually measured in terms of hours on the clock, for one reason because the estimation of energy spent by students and professors is so difficult. A unit resolves itself into a matter of x hours of apparent attention to duty. Eight units therefore indicates enough time to permit some mutual inspection of those who simulate attention to duty, the teachers and the students.

The class that year had been subjected to a common ritual. Each student was continuously appraised by instructors who then used their preferred symbols to express approval or disapproval. For example, a notebook which looked much like all the others, we hoped by accident,

led to a grade of "C" entered opposite the student's name under "notebooks." If only three out of four expected points appeared on answers to questions in an examination, the teachers registered a limited approval by recording 75 percent. A student who, in an oral discussion, had the answer expected by the teacher might get an "A" or a "10."

During the term we gathered some 35 recorded scores or symbols. Although the set of 35 would have made a partially complete description, they had to be consolidated into a single grade or expression of approval or disapproval. Registrars are boxed in between the administrative and teaching bodies, forcing them outwardly to be docile persons, but 35 grades for each student and course was too much for them. The arithmetic process of reducing our 35 symbols to a sort of average was a painful affair, requiring about a week. Even so, the frequency with which someone would discover that we had converted a combination of 67, C, and a plus-plus to an impossible "B" was embarrassing. Arguments over the results, accurate or not, were common. This was when I learned to consult the women teachers when the work of a good-looking coed was under debate. The coeds had learned long since that most male instructors viewed their work more charitably when they used their eyelashes than when they used their brains.

One man, in the class under discussion, irritated some instructors and appealed to others. With training in engineering, he was more mature than his classmates, and he was president of his class. These presidents are often students whose scholastic talents are not noteworthy either way but who have diplomatic talents varying from superb, meaning normally balanced, to magnificent, meaning that they are smooth political crooks. Presidents of well organized classes such as occur in professional groups usually have to be treated like administrators; that is, with care. This particular gentleman came up with a "D" by arithmetic average and for once no one could find an error. His work for us seemed notably more effective than the "D" implied so the instructors decided that the "D" was not proper. This case of pronounced apparent discrepancy set us off on our experiment.

During the first couple of experimental years we dropped everything but the subject itself, and some of our neighbors seemed to think that we had dropped that. We threw out everything that had to do with grades. We omitted examinations, called in no notebooks, and kept only check lists of work performed. We operated on the ridiculous assumption that the students were there to learn and that we were there to teach. With no precedent, older classmates could not indoctrinate our experimental class. With organized classes, this form of indoctrination can be insidious; you are beaten before you start in matters which you seek to improve. Our first experimental class accepted the changes in excellent spirit and went to work.

The results astonished us. For example, students were told that a notebook in our laboratory was unusually useful because many tests were carried

on simultaneously over periods of several days; but we made it clear that we would call in no notebooks. We used notebooks at desks, with the students, and showed interest in them. We saw really meaningful notebooks for the first time in years. We soon learned that students who had stayed away from instructors, afraid of currying favor or creating poor impressions, relaxed and acted naturally with no special awards or nagging penalties. Tension over black marks will never be eliminated but it was reduced as if by magic. Students surprised both themselves and us by asking for examinations, because it was too easy to postpone study and go to the movies. The instructors also relaxed, with removal of the constant unpleasant demand for judgment and appraisal. They were suddenly freed to concentrate on the student and on the subject. Good students breathed audible sighs of relief, for the first time, many of them said, free to study on the subject matter for its own sake instead of concentrating on a sociologic problem in human relationships. Weak students, unexpectedly treated like the rest of the class and spoken to in a friendly fashion, took on new courage. The low and high grades and the atmosphere of eternal haughty judgment, those barriers between teacher and student, were down. The term was one of real discovery, and most of the discoveries were pleasant.

The evidence was clear to us. A class of medical students had applied itself to study, aided by interested instructors. However, we had nothing with which to satisfy our dean and recorder. We could give a student an "A," but, if instead we said that we liked a student's work, we were charged with improper conduct. There was no place on the card for remarks. Good salesmen as well as good students get "A" and ornery fellows who upset the teachers as well as poor students get "D" but the distinctions are not mentionable. The rules of evidence and the rules of justice are tricky. That an "A" signifies liking is a fact, and liking depends on many factors. Some instructors are sure to approve of students said by others to be poor and *vice versa*, leading to trouble if instructors express themselves openly. However, they can hide behind grades. I once put this problem to an ardent supporter of grades, which, significantly enough, he had used as stepping stones. I mentioned one or two men of equal rank whose judgments of students differed from his. With no humor whatever, he proclaimed that some men, clearly those who disagreed with his judgments, did not use the system properly.

II

How to meet the demand for a record was an immediate question. Deans and registrars are likely to be fond of rules, so we had to choose from the accepted symbols, A, B, C, D, E, or F. Our agreement with the experimental class hinged on this point. Since our students then needed an average record of "C" to keep out of trouble, no one would be hurt if all students were given grades of "C." Chairmen of all departments concerned with our students had

agreed to use "C" grades when I pointed out what was happening. Many students were falling below "C" averages in our term and they were putting teachers of the next term under violent pressures. They had to use abnormally high grades merely to pass students. We had told our experimental students that they had nothing to gain but an education from us and nothing to lose except their medical lives, but this only in severe instances. There would be no canceling of one grade with another, and no nagging grades of the kind which says "we don't like your looks and don't want to see you again, so you get a 'D.'" Work for applause, for artificial awards, or coasting on a fair record would seriously endanger their medical careers. The moral effect of this proposal to offer no high grades and to protect them from low but passing grades was sound and the educational effect was good.

Since I am reporting what happened, I must here interpolate an aside. At the end of our experimental term the chairmen of other departments, who had not altered their teaching and had all but forgotten the agreement to use a single passing grade, without a blush reverted to standard grades. The major offender was a department which had a course of eight units, as we did. Most of their grades were usually "C's," but they were fond of "D" grades and took pleasure in praising one or two favorites by giving higher grades. This treachery, after a sworn promise to the students, left me in the position of the chemist whose final concentrate crashes on the floor. In a mood to make a few blistering remarks, I managed to find the names of all students who were given "D" in this other department. Every one of these was canceled with a "B" in our course! Before you question the ethics of this move, please also question the ethics of the fellow who broke his agreement. Eight or ten students whose low grades were neutralized, several of whom would have faced trouble at the end of the year, with perhaps one or two dismissals, were saved considerable anguish. Each of these students graduated without further troubles, putting the other department in a poor position as to their judgment.

Many points of detail of our experiment must be passed by. For instance, we had to develop some sort of records and also we put back examinations for both psychologic and educational reasons. By the second year the earlier class was telling the lower class how we did things, although it did help us with its approval. However, after each reappraisal of the situation we found that most of the principles could well be retained. Experience gradually began to reveal its lessons. The results seemed so surprising that I naïvely thought that the benefits should be made public so that others could partake and so that we would not be isolated with a unique method. Our experimental observations became the subject of debate in committee meetings of the faculty, but the idea appeared radical to many of those who had no experience with the procedure.

With the war, students were assigned rather than selected, graded appraisal seemed fatuous even to those who liked

such things. Two schools, medical and dental, outwardly dropped the A-F system of grades. One school used two categories, "passed" and "not passed," quickly returning to grades without even knowing it by adding "high passed" and "low passed." The other school, objecting to the rigorousness of "not passed," used the terms "clear" and "not clear" to label its two categories of students. This school really used only the two categories but most departments, keeping their own records, continued to use the old grades. Although they were within their rights in using whatever words or symbols they chose to record their observations, they lost the entire spirit of the shift. Even so, the absence of any deliberate scale of grades for nearly a decade was interesting and profitable.

To a dyed-in-the-wool grader, the thought that grades are disturbing can come as a surprise. That grades become badges of autocratic or despotic judgments of students has not bothered them. That grades introduce a serious pedagogic fault, with a marked and often adverse influence on teaching itself, does not occur to them.

A friend of mine who taught dental students favored the use of grades but was willing to weigh the question. He once lined up some large models of teeth and asked me to look at them. He pointed out the smooth contours, perfect fits, and strength of fillings in the teeth at the beginning of the row and then described carefully the progressive irregularities in teeth farther down the row. Having told me about the differences, he pointed out that I could see them clearly, though I was not a dentist. Then he asked triumphantly, "Why shouldn't I grade them from A to F?" My answer startled him. I merely said, "You just told me why you should not." He looked puzzled for a moment and then began to smile. He had been telling me specific features that he thought were right or needed correction. Not his judgment of rank but his specific observations were pertinent, whether he was teaching or just talking to me. Imagine that you are a prospective employer, and I know a student better than you do. You ask, not for my verdict, but for what I have observed, that you may judge for yourself. If I say, "I gave your applicant a '76'" and walk off, you have no observations but a perfunctory statement of my conclusions. Perhaps you are learning to drive, to paint, or to play the piano. You look to your mentors for guidance, not for their judgments. You learn to do these things because your primary interest and responsibility is with your own life and future, not just with outranking someone. If an instructor gives you a "C" every time you move, meaning commonness or mediocrity to almost everyone, you are not only not helped but you are discouraged, perhaps disgusted. Students submit to this disturbing process of labeling for years. That they survive is a tribute to their stamina, not to the teaching.

III

Suppose that, instead of a grade, words are used, perhaps a comment like this: "Slow on the uptake, earnest, but

reasonably industrious." This could be equivalent to a "C," but that student is entitled to his place in the world. He goes to school not to get a teacher's judgment but because the teacher has more experience than he has. In some situations his talents and efforts may have to be discussed, but this is a sort of indecent gossip and should be restricted whenever possible. To describe his work is bad enough. To use a mere symbol, a "C," is an unhelpful imposition. The student asks what to do with his sick horse and is told that his horse is sick. A healthy attitude calls for concern with the student's talents and efforts and what to do with them. A teacher can be friendly with and can respect any honest student. A barrier is erected between the two when the teacher merely bestows the highhanded "C" of mediocrity. Try thinking in terms of realities instead of grades sometime. This does not imply that students are equal in ability nor does it imply that critical judgments of students are not needed at times. Nevertheless, you will find that the process of foregoing all thoughts about classifying a student as good, indifferent, or bad produces a healthy change in outlook. A new interest is acquired in helping students to help themselves, the only substantial teaching.

The urge to grade, we discovered, came from several different groups of teachers. Punitive teachers, for example, seek a simple and seemingly impersonal way to threaten, to slap the wrists of students. Political teachers feel frustrated when they cannot pat their favorites on their backs with seemingly impersonal praise. Maudlin teachers use grades instead of handkerchiefs for their tears of sympathy and lovers of authority take real pleasure from the final mandates of approbation or disapprobation. Nor can we forget the chart-lovers to whom the realities of life are less than their neatly ruled charts of purported data. Members of all of these groups feel frustrated without grades, yet none of the five is supported by a worthy educational motive.

Some of our best experimental progress was made during the era when no department was required to report any grades. When grades were required we used only two, one to say "promoted" to most or all students and the other to express doubts, if any. Usually we used a B and some one grade below that, C, D, or E. Often all students got B grades. The use of any combination of two grades was awkward but since the lower grade was always scarce, arguments were few. Most students either felt that the grade of "B" was acceptable or considered it to carry a bonus.

The temptation is strong to spin a few yarns along the way. For example, one faculty was persuaded to drop grades for a term as an experiment. At the end of the term the Dean announced blithely that he hoped that everyone had enjoyed the experiment and then reversed his field, asking the faculty to turn in grades as usual for his office! Although this abysmal lack of understanding of the whole problem aroused some snappy words, the fact that everyone was ready to turn in the grades

demanded pointed up the futility of the experiment. No one had really given it a trial. During the official nongrading years one or two members of another faculty put through a motion which added to their two accepted categories, "Clear" and "Not Clear," a third category, "Passed with honors." The introduction of an honors category of course puts back grading. Even freshman students, inspecting the scheme for the first time, responded immediately and usually almost in identical words: "Why, that spoils the whole idea."

Another yarn could be spun about the maneuvers used in the two schools by a few strongly entrenched men to return to standard grading. Victory, not free discussion, was the goal of the proponents of grading. Our department had refrained from grading in principle as well as fact for two decades by this time so I was the principal opponent of the return to grades. One school, led by a small crew set on victory, refused to allow the students to vote on the issue, even with the stipulation that they need pay no attention to the results. No genuine consideration of grades and of their effect on teaching was sought or offered. The vote to return to grades was taken quickly, with a well organized cheering section and victory, not right and wrong, an evident goal.

Students did vote on the issue many times, however. We took careful polls ourselves and had many unequivocally sincere comments, though we always wondered if we were too close to get true reactions. These votes invariably ranged from 95 to 100 per cent against grading. Other polls were taken. One class worked two years over an elaborate questionnaire in which the grading question was included almost incidentally. These students, with eight to ten years of university schooling, did their voting several years after we had anything to do with the class. Managed entirely by the class, the vote was nevertheless 100 per cent against grading. Another time a student ran a private poll with a tangential viewpoint: he asked his fellow students whether they thought they worked harder when grades were used or without them. This vote was split. Some felt that they or their fellows did not work as hard but a majority felt that they worked harder and to better effect. One of the neatest polls was taken at a time when the medical school was about to vote on a return to grading. I wrote a query in a couple of sentences, simply stating that the school was considering the return to grading, and asking whether or not they approved. A man in another department who approved of grading, an able fellow who was respected by students, signed the request with me and we turned it over to the students to consider any way that they saw fit. They voted by separate classes with results close to 100 per cent against returning to the A to F system. Although this faculty of course ignored the vote, it did not question freedom of expression, in sharp contradistinction to the group which formally denied the students a right to express themselves on a matter so close to their welfare.

The medical faculty's debate on the proposed return to grading was a rough

lesson in practical politics. One speaker said that we all knew that some students appealed to us more than others, so why not use grades to express this? This bold but honest statement was the only valid argument used. Another speaker, with little experience in teaching, flatly claimed that good examinations could not be given without grades. Because he was respected in his field, his pronouncement was swallowed whole. The argument that probably turned the tide was nothing but a mistake in arithmetic. Hospitals choose medical graduates to serve as interns by finding out what they can about applicants. Large hospitals with many applicants sometimes depend rather heavily on a mechanized system, using ranks and grades. In such instances our students, when there were no grades, were assigned average grades and processed accordingly. A principal debater who wanted to return to grades claimed that our students were losing out, manifestly unfairly. That the assignment of an average grade gave exactly as many students a bonus as it provided a handicap apparently never occurred to him. Possibly one or two applicants may have had to take a second choice for internship, against which a much greater number certainly benefited from our use of specific information instead of ranks or grade records. In a good class of 80 students 40 rank from *41st* downward.

So much for the experiment as such. It led to a few sharply defined principles and conclusions. Genuine progress can come only from understanding rather than from emotional wishes. We should be adult, beyond generalized judgments, such as that all Germans are brash, all Frenchmen are frivolous, all British are phlegmatic, and all Americans are noisy mercenaries. Really, at the least we should limit this sort of thing to Mondays, Wednesdays, and Fridays.

IV

Getting right down to business, we are now considering two specific problems: first, to find a method which can be used for such appraisal, evaluation, and recording the performances of students as may be essential, and, second, to weigh the relation of this method to teaching itself. Known in some quarters as "evaluation of student performance," we can save trouble by avoiding stuffy complexities. The real problem is direct.

On occasion we who teach have to certify that our students work or do not work and that they either possess or lack talent so that their work is effective. Their performances are and will be the resultants of forces of capacity and energy under rules which work here as in physics. When a student of given capacity applies himself to the subject of study with a certain energy, some expression of the ratio of Capacity to Energy should make a satisfactory record. The student high in capacity but low in work and the student low in talent but strong in energy are both deficient, so that the actual ratio of capacity to energy is undesirable both when it exceeds 1.0 and when it is less than 1.0. Equal capacity and energy are not the goal, for both the fellow low in

talent but working at a low energy and the brilliant fellow who works hard may attain unity so that they appear equal, yet they represent opposite extremes of desirability. Most students are between these extremes, and here we do not all agree. Some of us favor the fellow who is brilliant but works at half speed over the ordinary fellow who works at full speed and *vice versa*. We cannot say one is good, the other bad. Reduced to the basic elements of capacity and energy, attempts to measure and record each quantitatively would take us back to the ranking of students on an empirical scale. This, in fact, epitomizes the scrambled efforts to describe a man by a single symbol, the grade.

That the principle of a relative grade or scale itself is in error does not make it easy to avoid without subterfuge. The instructor who first reads an examination with the intention of eliminating grades will find himself writing "good" or "bad" on papers, mere equivalents to grades. When an answer makes a good impression, not the impression but the reason for it is significant. The specific reason, not the impression, belongs in the record. Some teachers catch this point quickly. Others require a year or two to break away from the scale of relativity. The essential feature of appraisal and record is not one of rating or grading, nor does the simplified sorting into only two groups, "passed" and "not passed," meet the situation, for the category of "not passed" is not a record but a conclusion. To divide a class into two groups called "clear" and "not clear" is a satisfactory move, but it leaves to someone the task of finding and weighing specific difficulties of students who fall into the "not clear" group when the record says no more than that.

Viewed as classifiable objects, only two groups of students seem proper. The first and major group, often an entire class, consists of students who are in the clear. Its members do at least a moderate amount of work and have at least acceptable talents. They are promoted and wear the cap and gown at Commencement. For the sake of mathematical elegance, let us call this group *P*. The second group is much smaller, for it includes students whose status for any reason is in serious doubt. The significant feature of this group is not the doubt but a specific recognition of what is wrong and a decision as to what should be done about it. Because of illness Jones failed to complete his work and missed the final examination. Smith is attentive and able but does poorly because he spends too much time in outside work. Johnson's girl friend takes too much time. Jackson lost a parent and became embroiled in family matters. Lee is cocky and smart but never gets down to work, Porter spends his energy on campus politics, and, earnest as he is, Campbell is just too slow to keep up. This doubtful group is a motley group with no two alike, but it is by far the smaller group. This group can be called the *Q* group.

The two basic groups are easy to remember. The use of *P* and *Q* to designate them has a certain mathematical elegance and gets away from the dangerous association with orthodox sorting into grades. As an aid to memory, the

letter *P* happens to fit in with *P*romoted or *P*assed, the major group that is in the clear to go ahead, and *Q* happens to fit the *Q*uestioned group, students whose work is for any reason questioned, whether this leads to aid or censure.

Setting aside traditional viewpoints for the moment, our problem can now be put in plain English. We are matching all schemes which are based on *grading* or ranking against the use of pertinent *descriptive* words. In a sense, we ask whether the conclusion or the basis for a conclusion is a proper part of a record.

At first the idea is not easy to catch. *Grading* is a process of sorting, whether we say A to F, use the words "good," "bad," and "indifferent," or begin gloriously with "colossal" and work up, as they do with olives. The concept of *evaluation* straddles the fence most unfortunately. Let us drop it, preferably hard enough to break it. The imposing array of charts which are set up for evaluation by some educational groups are not worth the cheapest abacus in Chinatown. A *descriptive record* describes, without judging or grading. My description of the work of two students on the campus, given as you would describe an experiment in the laboratory, gives you some idea of what I think they are like. You may question my judgment, suspect bias, or believe me to be completely rattle-brained, but even so my description leaves you free to weigh my bias as you wish. What I thought I saw is not anonymous nor is it disguised by an illusory code.

Once again the English language has come to our rescue. Merriam Webster's unabridged dictionary is said to define some 600,000 words. Surely this is enough to express our meanings. To be told that we must select one of six letters of the alphabet, without even one word, to describe a complex situation which is vital in the lives of our fellow men borders on the ridiculous. The suggestion that 30 students, or perhaps 300, be described by a reasonable number of adjectives after limited observations is at first overwhelming. One answer to this is that conclusions drawn on 300 students as though they had been described, in terms of a grade for each, seems worse than seeking the meager basis for conclusions, but let me hasten a bit further in a practical way. Our experiment revealed sharply and quickly that the most realistic descriptions were found by what I call a "flotation technique." This consists of letting nature take its course. Assume that you face a student with whom there is a modest chance to get acquainted. In due time several persons note that he is industrious, a hard-working fellow, though other remarks differ. John's industry is a characteristic which floated; it rose to the top like cream. Observers are free to note salient characteristics. Also, they are part of their own descriptions, so the initials of observers are noted with all records. Some observers are severe, some charitable, some accurate, some casual, and some devious.

V

The "flotation technique" is worth a second look. Successful descriptions of students' work may require that all lurk-

ing psychologists or educationists be locked outside. Most of them by virtue of their professions endorse a descriptive system, but they dote on orderly charts. If I say John is industrious, they will put down "industry" on a chart with six columns after it and demand that I use six grades of industry and apply it to each student. This is an exact opposite to the "flotation technique." Characteristics worth noting for each student will float to the top and only these are worth recording. Schemes and charts are wrong in principle and hamper the process. Industry is one of John's salient characteristics and perhaps one or two other students in the class may be conspicuously industrious or lazy. However, to weigh this characteristic for each member of the class nullifies the whole principle, wastes time, creates an unhealthy environment, and is utterly futile. Instead of bringing out the salient points it buries them, meanwhile sterilizing the staff both as to powers of observation and as to interest. The fellow next to John may be notably theoretical, another will be conspicuously able with his hands but slow in reading, a third will rattle his quick mind in most uncertain fashion, and so on. The next student noted may be the only one who is called notably meticulous. The salient characteristics of each student will take care of themselves, if they are allowed to do so.

The descriptive outlook is not difficult to tie in with the more familiar one. The orthodox grader seeks to apply a scale to his students, asking only the question, "How good is he?" When John is given 76, his position on the scale is fixed with apparent precision but why it is not 50 or 100 you have no idea. The use of charts with graded degrees of characteristics is really a modification of grading, the fault that the chart proposes to overcome.

Teachers, administrators, and registrars who are fond of rules and systems, and many are, are nervous about the suggestion that the gates be opened to free expression and concentration on real issues. To them chaos is being advocated. That I am opposing domination by rules is true, but I am not advocating chaos. Answers taken from experience seem to provide a defense against charges of chaos. Our records on over 5000 students of all sorts have evolved from completely graded records to the present descriptive system. On current departmental records four entries appear, two for midterm examinations, one for a final examination, and a closing entry we call "comments." We write extensively on midterm examinations but a descriptive comment, both for the students and for the records, is put at the top of each paper and initialed. The record shows that two observers read this particular examination that I quote, and I can tell who they were. One observer said: "Standard but too orthodox, too unimaginative, and too idealistic for me. Try standing alone." The other said: "Narrow and stereotyped. Try for a wider angle." The student also knows who made the comments and, if he chooses, he can inquire or interpret accordingly. His rank relative to his neighbor cannot be considered. Students face

three competitions, with the teacher, with fellow students, and with the subject. The principal competition, that between student and the subject, takes its proper paramount position.

At the end of the term each member of the staff, working independently, writes comments on the talents and performances of students. Comments on a medical student, chosen at random, read as follows: The first observer says: "Estimated as the perfect conscientious student, needing fire-crackers and other explosions to get him going in human relations." The second said: "Very quiet and unassuming, but an intelligent, perceptive student and a steady competent worker." The third only put down a question mark. The fourth observer said: "Reticent; keeps out of the way. No positive impression." The fifth said: "Quiet and retiring, pays attention to business at hand, and seems to have understanding." The sixth said: "No comment." Note how a few salient characteristics have floated to the surface and how you can think of him as a person. Together they make something of a descriptive picture of the student and his performance. A record of 76, 92, 81, and C, rough translations of these comments, give no impression of this fellow. With descriptive records, letters of recommendation become straightforward and easy. The Dean has specific information when problems arise. Deans on occasion have called for our records and a current dean has recently required all departments to turn in descriptive comments on each student. Frankly subjective, descriptive records attain a higher degree of charitable objectiveness than do grades. Grades, of course, are also subjective but they offer the teacher a screen behind which to hide. Imperfect as they are, individual comments concern Mr. K, not his relationship to his fellow students.

In spite of scars derived from the intimacies of our experiment and the inadequacies in our methods thus far, the descriptive approach still seems to me to be forthright and direct. We who teach work with the students while they learn. We need a record of sorts, but the record is not in itself an end. Careful study shows that with more than half of each class we would do well with no records, but since we never know which half we cannot take advantage of this. The use of the English language to say what we mean seems far more reasonable than an effort to use a few symbols which disguise and distort as well as injure. Each student is a neighbor and an individual, calling for a record which is specific, not relative, and descriptive rather than graded.

If the principle is correct, can the results be accepted? That, no doubt, depends on whom you ask, and each department needs latitude in interpretation. However, we have used a descriptive record, not grades, for over a quarter of a century with medical, dental, pharmacy, nursing, and science and art students, both graduate and undergraduate. The advantages have been evident, drawbacks do exist, but no evidence of trouble administratively, pedagogically, or socially has appeared. But please do not misinterpret this: there have been

some debates. The urge to operate a dictatorship managed by the teacher is strong. The urge to condemn or reward is strong. The urge to reduce innately complex ideas to simplified systems is strong. Even the urge to use symbols is strong. Some of these urges are unworthy but not one of them is actually denied in the principle or method of description. The principle expressed asks only that teachers use their own words to say what they mean instead of trying to make significant observations by using inadequate symbols, and that they work democratically with each student instead of endeavoring to judge worth in superior proclamations. I once wrote an article which was published, but the title I had used was changed. I had it: TO GRADE OR NOT DEGRADE. It came out, of course: TO GRADE OR NOT TO GRADE. I didn't even argue with the editor. The topic involves our conceits, and is, after all, a little ticklish.

The most effective way to reach his (the supervisor's) pupils is through the medium of their teachers and he can help these pupils in no better way than to give the teachers a justifiable pride in the work that they are doing through his own recognition of its worth and its value, through his own respect for the significance of the lessons that experience teaches them, through his own suggestive help in making that experience profitable and suggestive. And just at the present moment he can make no better start than assuring them of the truth Emerson expresses when he defines the true scholar as the man who remains firm in his belief that a popgun is only a popgun although the ancient and honored of earth may solemnly affirm it to be the crack of doom.
—William C. Bagley, Craftsmanship in Teaching, *pp. 91-95*

Sparrow's Return

Nell Griffith Wilson

Blue-veiled, warm days of autumn trail the year
  While orchard trees bestow their fragrant yield,
Quick passing time, and branches bold and sere
  Will herald winter's march across the field.
The sparrow, with its golden crown, returning,
  Sings three soft notes in dreamy, plaintive tone,
So sweetly sad and yet with joyful yearning
  To waken memories for me alone.

"Our bird is here! Oh, surely you must know,
  You must be earthward drawn when love is strong
To hear our chosen words that seem to flow
  So smoothly with its brief 'I-love-you' song."
But only silence waits this autumn day
  In answer to a sparrow's roundelay.

Education and the Critics, 1958

Joseph E. Gould

I

There seems to be a marked tendency in human beings to search for a scapegoat in every crisis situation. Even during our surfeit of postwar honey there was a generalized dissatisfaction with the product and process of American education, but now that we are in our post-sputnik time of troubles, with inflation-depression complications, the tendency to blame all our woes on the shortcomings of our educational system is marked indeed. Many articles have appeared in a wide diversity of journals, ringing the changes on the same theme: stop doing what you are now doing in the schools, and start doing something else. Generally speaking, where "something else" is specified, it is usually qualified by "back to."

This nostalgia for a vanished golden age is understandable in view of the nightmarish aspect of the contemporary scene. The good old days really do look good. Pre-Civil War America, for example, seems a golden age in retrospect, at least for many Caucasians. (Because a healthy culture has healthy schools, perhaps it is natural to infer that the culture was healthy because the schools were good.) At any rate, the culture provided a large number of commonly held ideas and beliefs which made for stability and permanence. These ideas and beliefs were disseminated from pulpits, referred to confidently by lawyers and judges, frequently appealed to, but rarely debated. The teaching of these ideas was the principal stock-in-trade of most colleges. Vide Timothy Dwight the elder, writing about Yale in the first quarter of the 19th century:

> There is not a legislature, a court, a congregation, nor even a fireside, which does not share in these benefits. From this fountain flow, circuitously indeed, but really and ultimately, the laws of the state and its jurisprudence, the rules which are inculcated in its churches.[1]

Many forces were subtly at work in America of the 1840's and '50's which in combination were undermining and nullifying the "rules, doctrines and precepts" of this "happy society" but the two most important were the popularization of Darwin's doctrine and the cataclysm of the Civil War, both of which brought to fruition at a stroke certain slow changes that had been taking place during the preceding 20 years.

The old America forever disappeared by 1865. In the competitive, shallowly optimistic post-war culture of the 'seventies and 'eighties industrialism was on the march, and the old ideals and old faiths were bowled over right and left. Progress was equated with increasing control of the physical environment, and the methods and techniques which were being successfully applied in controlling physical nature were considered applicable (with minor changes yet to be discovered) to overcome the age-old recalcitrance in human nature. Since it

thought it possessed an infallible method, the culture concentrated on means to the exclusion of any consideration of ends, and dissipated its energies in a tireless pursuit of profit to the exclusion of other values.

It is not surprising that colleges and universities did the same thing, concentrating on means to exclusion of ends. Instead of chasing profits, they chased "facts." Both the universities and the culture in which they existed professed to have replaced irrational faith with rational objectivity, yet the curious fact that both refused to consider ends while concentrating furiously on means indicated a naïve faith that all would come right in the end; a faith as irrational and as emotionally held by its adherents as any religious dogma.

The fanatical passion for bigness which motivated the builders of some of our great universities, and their confidence in the disappearance of the small college (like Carnegie's tireless energy and Rockefeller's astute patience) was based on a fund of emotion generated by faith, the faith shared by all of them that what they were doing was not only compatible with, but even made mandatory by, a cosmic law which dictated competition, consolidation, systematization, and rigorous elimination of the unfit, in the name of unceasing progress. John Fiske had told them this was true in 1884:

> The very same causes, therefore, deeply grounded in the nature of industrial civilization, which have developed science and art, have also a distinct tendency to encourage the growth of the sympathetic emotions. . . . The coarser forms of cruelty are disappearing, and the butchery of men has greatly diminished.[2]

"Industrial Civilization," according to Fiske, was making war obsolete:

> Whereas warfare was once dominant over the face of the earth and came home in all its horrid details to everybody's door, and threatened the very existence of industrial civilization; it has now become narrowly confined in time and space, it no longer comes home to everybody's door, and in so far as it is still tolerated, for want of a better method of settling grave international questions, it has become quite ancillary to the paramount needs of industrial civilization.[3]

Not recognizing the central core of their dogma for what it was, an article of faith, the policy-makers of the late nineteenth century destroyed the roots by which it might have been nourished. The emotional side of their own nature was rigorously, even systematically repressed, and they formulated policies which rewarded in large measure those who showed diligence in fact finding, problem solving and acquisition, regarding other forms of human behavior as unwholesome. The college professor who based his lectures on a logical appeal to carefully documented "proof" was considered scientific and rewarded by promotion, although his lectures were concerned only with that portion of his subject matter which could be so treated, and the clergyman whose sermons appealed to the latest findings of science as proof of the accuracy of some obscure scriptural statement was termed progressive, even though the statement and the sermon carried no reference to any

of the great questions which eternally trouble the soul of man. The function of both the clergyman and the professor as critics of the ends of their society and interpreters of those ends to the generality was forgotten, and they were constrained by the subtle bait of preferment to concentrate their attention upon means, their criterion being the compatibility of those means with the canons of scientific methodology. The professor, having lost the vantage ground of ethical position, was judged by the same standards as were applied to the lesser executives in the newly created industrial hierarchies, to the engineers who contributed technical data, the standard in each case being the ability to produce. The university as an institution had been forced to abdicate its traditional role, and under the guise of tough-minded realism the shallow materialism and intellectual sterility of its position was unwittingly laid bare in Pareto's pompous phrase:

> We have no knowledge of what *must* or *ought* to be. We are looking strictly for what *is*.[4]

Obviously, when one is looking strictly for what *is*, it is a great temptation to assume that those phenomena which do not lend themselves to scientific measurement and control do not exist. Thus mechanistic biology and later, physics and psychology, reduced man to a complex of electrons and protons, a collection of stimulus-response relationships, or a bundle of sense impressions, depending on which one preferred. Because it was "unscientific," there was no point in discussing man's moral nature, his ethical aspirations or his emotional needs; all these were figments of the imagination of humanists and could be subsumed under the laws of mechanistic biology.

By the nineteen-twenties university faculties had convinced themselves that their concern was exclusively with pure truth, and they would have agreed with Flexner that:

> The constitution of the stars, the constitution of the atom, the constitutions of Oklahoma, Danzig, or Kenya; what is happening in the stars, in the atom, in Oklahoma, what social and political consequence flow from the fact that the politician is becoming more and more obsolescent while the business man and the idealist are playing a larger part in the development of society—all these are important to know about. It is not the business of the university to *do* anything about any of them.[5]

Flexner could not be blamed for failing to foresee that the constitutions both of Danzig and the atom would be rather spectacularly smashed in the ensuing two decades. His idea, however, that the university should have merely the function of a sort of astronomical observatory, to note and record data, seems not only quietistic, but suicidal.

II

Bogged down in a sterile intellectualism, narrowly content with minutely subdivided fields of specialization, concentrating on means to the exclusion of ends, American higher education in the nineteen twenties and thirties had forgotten to be concerned, in Ortega's phrase,

> ". . . how society and the heart of man

are to be organized that there may continue to be investigations.[6]

Not only the colleges but the schools, too, shared and continue to share this naïve concern with means. Soft or hard, permissive or prescriptive, there is unanimous if tacit agreement that evil and ignorance are synonymous. Flexner and Dewey, though miles apart in method, were both products of their times, and both would have agreed that "education" would make everyone better. Although Flexner's *beau ideal* was scholarship and Dewey's was the fuller life for the citizen, each of them assumed (what else was there?) that amassing facts meant progress. Flexner would have no nonsense about it. Our schools would process and select those who eventually would be trained by the university for this highest of callings. Dewey was less naïve, he knew that the number of "facts" about the universe which could be made operative for an individual or a nation was infinitesimal in relation to the total, but he was hopeful that more and more of them could be observed and brought under control, by somebody, at any rate. Then new theories would emerge, to broaden mankind's horizon.

But if they don't emerge, these new theories? Mumford assessed this possibility:

> Now it happens that there is a close historic connection between the unrelated production of knowledge and the unrelated production of material goods: the present crisis in our civilization arises partly out of serious maladjustments in both departments. Both exhibit a growing rationalization within the process of production and a growing irrationality, marked by moral irresponsibility and social ineffectiveness, in the distribution of the product. Fundamentally the factory and the university have accepted the same premise: the belief that fragments of mechanical production or fragments of knowledge are real, are significant, and are valuable in themselves: to produce them and accumulate them is a profitable life occupation. This is the basis of an acquisitive society; a natural compensation, perhaps, for long centuries of intellectual sterility and material want. Filled with admiration for the new technical processes of production, we have, however, lost sight of the social destination of the goods themselves. When a factory goes on producing without finding an outlet, the result is a surplus of undisposable stock: a prelude to unemployment and perhaps bankruptcy. This has a parallel in our intellectual life. There is the same failure to translate technical advances into social values, and orderly methods of production into a planful and purposive scheme of living.[7]

Mumford, unlike those who seek a scapegoat in education, knows that our troubles do not stem from the "vicious" doctrines of a Dewey or his misinterpretation by his followers.[8] Whatever is wrong in education reflects what is wrong in our society. We can mourn the fact that in their headlong haste to employ "the new technical processes of production" and to reap the benefits of that tremendous upsurge of energy which accompanied the advance of science and technology in the late nineteenth century, those persons who shaped the institutions of the period too often and too heavily favored one side of man's nature to the exclusion of other and possibly more important sides. Their ideal was man the accumulator, and when acquisi-

tion becomes an end in itself, rather than a means to an end, the process becomes sterile and enthusiasm disappears.

The tycoons of the last half of the 19th century, and the millions who expended their energies trying to be tycoons, were acquisitive because, however dimly, they saw themselves fulfilling a function which had a cosmic sanction. The professors, too, were certain that precisely ascertained facts would be transmuted into wisdom by a teleological process with which they need not concern themselves. Then, as Parrington describes it:

> . . . came a more sombre mood that was to put away the genial romanticism of Victorian evolution, substitute a mechanistic conception for the earlier teleological process, and reshape its philosophy in harmony with a deterministic pessimism that denied purpose or plan in the changing universe of matter.[9]

The ends of a system of education must coincide with the ends of the society in which that system is imbedded. It is useless to belabor an educational system for failing to inculcate values which are not present in its parent society.

To the writer it seems clear that significant changes in the goals of our society must appear before they will be reflected in our system of education. Perhaps those changes are occurring now. Our overweening faith in American know-how has been shaken. Perhaps we will channel at least some of our energies into American know-what-for.

BIBLIOGRAPHY

1. Dwight, Timothy, *Travels in New England and New York*, London. For W. Baynes and Son, 1823, I, p. 175.
2. Fiske, John, *The Destiny of Man*, Boston, Houghton, Mifflin, 1899, p. 99.
3. *Ibid.*, p. 94.
4. Pareto, Vilifredo, *The Mind and Society* (1904), New York, Harcourt, 1935, I, p. 18.
5. Flexner, Abraham, *Universities, American, English, German*, New York, Oxford, 1930, p. 24.
6. Ortega Y. Gasset, Jose, *Revolt of the Masses*, New York, W. W. Norton, 1932, p. 126.
7. Mumford, Lewis, "The Unified Approach to Knowledge and Life," *Values for Survival*, New York, Harcourt, Brace, 1946, pp. 202-203.
8. *Time*, LXXI, 13, Mar. 21, 1958, p. 44.
9. Parrington, Vernon Louis. *Main Currents in American Thought*, V 3, New York, Harcourt, Brace, 1930, p. 189.

Those who expect to reap the blessings of freedom, must, like men, undergo the fatigue of supporting it.—THOMAS PAINE

Inevitable

O. L. Abbott

If we could solve the riddle of the Sphinx,
Or chart a course to reach Utopia's shore,
Or forge a chain with happiness for links,
Or dwell in Shangra-la forevermore,
If we could sate ourselves with Lotus fruit,
Or slake our thirst with milk of Paradise,
Or find the foods that every palate suit,
Or view a prospect pleasing to all eyes,
If we could banish every earthly blight,
And guarantee an after-life likewise,
Would we find contentment in our lot?
We're human. We would not.

Needed: A Declaration of Dependence

George D. Stephens

I

Education today in the United States, Janus-like, is a giant with two faces. From one point of view it is happy, fat, and prosperous. There are more students, teachers, schools, more of everything than ever before, including more and higher taxes to support the whole enormous effort. Education is booming.

But on the reverse side the face is wrinkled and scrawny, drawn with trouble and starvation. There are not enough schools and not enough well-trained teachers to provide good or even adequate training for the thousands and millions of youngsters flooding in upon us. Teachers' salaries, in comparison with those of the practitioners of other trades from physician to plumber, are such that many bright people either refuse to enter the profession or, once in it, leave at the first opportunity. More intangibly, when we consider the respect given the profession by the public at large, teaching offers only a mediocre reward.

The result, multiplied by such problems as half-day sessions, over-crowded classrooms, and ill-disciplined youngsters, is that the standard of instruction suffers. Moreover, the creative thinking necessary for the success of any great social enterprise, in this instance education, deteriorates from the lack of good minds energetically and courageously directed toward the solution of its problems. All this will result, and is resulting, in lower standards—that is to say, in poorly educated people; and more important for a democracy, poorly educated citizens.

The Janus-comparison with which I began is oversimplified. Our educational system is extremely complex, with many faces or facets. Its problems are many; the solutions in effect or proposed are various and sometimes contradictory. I want to focus on one fault of our system, but it is a fault—it is a fact—which needs serious consideration and energetic action. If we could solve it, if we could go even part of the way toward an effective answer, we would not resolve all our troubles. But we would find that some of them would be easier to handle; some would diminish or disappear.

This fault is the lack of effective discipline in our schools; the fact is that we need better discipline. *Blackboard Jungle* dramatized the near-chaotic conditions in one classroom of a city high school. Many adults who saw the picture or read the novel were shocked, and some gave thought, at least for the moment, to the questions it raised about their own schools, their own children. Many, however, probably shrugged it off as an unusual, isolated example: it did not apply to *their* schools, nor to *their* children.

The fact is that it does. The complete lack of respect for the teacher's authority in *Blackboard Jungle*, expressed in cynical indifference and hostile, brutish

rowdiness, is of course not prevalent in every classroom. If it were, public opinion would have demanded that "something be done about it." Either effective action would have to be taken to improve the situation or our educational system would have to be junked entirely. There are many classrooms which are better, some much better. But there are many schools, especially in metropolitan areas, where conditions similar to these do exist. And the disturbing fact is that such behavior is on the increase. I assert flatly that it is a rare school now in which the youngsters respect the teacher's authority and learning to the degree and in the manner of one hundred, or fifty, or even ten years ago. The drift is in the other direction.

This is true not only in the high schools, where matters are very serious, but also on the elementary level. In my own work as a teacher I have seen some of this increasing disorder, and I have heard from other teachers of a great deal more. In the fall of 1956 the Los Angeles Elementary Teachers Club complained to their school board that misfits in their classrooms are getting out of hand and that they have insufficient authority to deal with them. Asked to document their charges, they sent a questionnaire to the elementary teachers of the city. The results, published in the Los Angeles *Mirror-News*, are instructive. Of 3491 teachers who replied, 671 stated that they have no "severe problem children," but the remainder said they have anywhere from one to ten or more. More specifically, 1839 teachers said they have from one to three "severe problem children"; 705, four to six; 147, seven to nine; 129, ten or more. "The imagination shudders at what would and does happen when these children perform acts of misbehavior in shifts," said a spokesman for the group. The imagination may shudder, but the teacher, who must face the misbehavior and try to deal with it, may not. He must somehow go on teaching.

Except for profanity, stealing, and lying, students today are worse than they were ten years ago, according to these teachers. "On the upswing are inattention, insolence, wilful disobedience, defiance, speaking out of turn, and the number of emotionally disturbed."

Complaints of this kind are not unusual. Reports of misbehavior ranging from incessant chatter to violence and vandalism are piling up all over the country, especially in city areas. One child talking or shouting out at will, throwing a tantrum—or any portable object at hand—can disturb a classroom; can if he persists in such behavior all but disrupt it. A handful of rowdies or misfits, who under present conditions apparently cannot be—or at any rate often are not—effectively controlled, can deliberately reduce a classroom to near-chaos. It is not conducive to the efficiency and happiness of teachers to know that their charges possess knives and other lethal weapons which they know how to use and do on occasion use, on each other and on the teacher.

In these circumstances teachers must spend much of their time acting as policemen. They have little time or energy left to go about the serious effort

of trying to impart their knowledge and wisdom—a difficult procedure at best—to their charges. In *Blackboard Jungle* a dedicated teacher managed, after heroic efforts, to establish a measure of control and sympathy in his students. But few teachers can endure what he did. Even in lesser degree—and fortunately most teachers are not yet called upon to face such extremes of violent rowdiness in concentrated doses—there is a limit to the nervous strain which human flesh can endure, hour after hour, day after day.

To the answers usually given to account for the large numbers of teachers who leave the profession for other occupations, principally low salaries and lack of public respect, we should add another: inability to endure, or refusal to endure, the role of policeman. If they had not invested much time, money, and effort in training for teaching, spent years of their lives at it and are now more or less stuck, probably more teachers would quit. According to the Teacher Organizations Coordinating Committee, representing teachers in the schools of Los Angeles, that area needs 6,000 new teachers at once and will need 60,000 during the next ten years. The State Board of Education estimates that California will need 167,000 new teachers during the next ten years. Yet more than 100,000 qualified teachers in California are not teaching—by choice. In 1956, of the graduates of California colleges trained for teaching, 55% of the prospective secondary teachers and 37% on the elementary level turned to other occupations. Though the crisis is not so acute in less heavily populated areas, reports indicate that the situation is similar in many states. Recognizing this, President Eisenhower has said, "Far more needs to be done in our various communities to enhance the status of the teacher—in salary, in community esteem and support—and thereby attract more people to the profession . . . and equally important, retain those who bear well the trust of instructing our youth."

II

What happens to the well-disposed, well-behaved children in our schools? There are, of course, some in every room, even the worst. There are many in every school, even the worst. Because of the time and effort the teacher must give to policing the rowdy or misfit minority, obviously their training suffers. The knowledge and wisdom they should be acquiring diminishes in amount and degree. Some teen-agers, questioned about their reaction to *Blackboard Jungle*, thought such misbehavior attractive; and certainly the picture added fuel to the "rock 'n' roll" fire. Lack of respect for learning and authority is infectious; to be labelled "teacher's pet" or "grind" or "dope" is embarrassing; misbehavior begins to look like good fun when "everybody" does it and gets away with it. The rowdy minority tends to impose its mode of behavior on the classroom—and the minority is growing.

It is easy glibly to pin the blame for all this on one or another of several causes: the insecurity and unrest of our times, war, depression, slums, divorce and broken homes, "progressive" education, administrators, teachers, parents,

children—or all of them. Blame may legitimately be placed on all. But deeper than these is something in the very nature of American society. Our country was founded in rebellion against authority; in ringing tones our Declaration of Independence rejects tyranny and affirms the equality of all men. Swarming millions came to these shores to escape the fixed pattern of European authoritarianism and to find a land of freedom and equality.

But freedom to some people, a minority but a troublesome one, means license to act as they wish as far as they can "get away with it." Especially under frontier conditions, and in the stone jungles of great cities, lawlessness has been and is a strong force in American life. Equality, too, as often popularly interpreted, means that every person is as good as the other, no matter what the other's position or learning.

Especially no matter what his learning. For twenty-five hundred years in Europe education was one of the perquisites of the aristocracy; except for churchmen, until the latter part of the nineteenth century only the gentlemen —that is, the aristocrats—were given opportunities for education beyond the rudimentary or selftaught kind. So, in the European mind, education was connected with aristocracy and authority, part of the system which the "commoners" sought to escape. The first settlers had hardly landed at Jamestown when the rebellion of the commoners against the gentlemen got under way.

Except in New England, where education had strong church sanction, until almost the twentieth century schools and teachers were the ragged step-children of American society, as indeed they still are. On the expanding frontier to the West, although there were always people who saw the value of education, there were many who had little time or need for it—who even, equating it with those whom they thought of as the puffed-up "better than thous," were antagonistic. It is no accident that Washington Irving's Ichabod Crane, lean and hungry, out-at-elbows, awkward and ridiculous, has become a stereotype of the "schoolteacher" in American thinking. Note that it was Brom Bones, the hearty pumpkin-heaver, a "practical" man of action, who scared off Ichabod and won the hand of the handsome heiress. Evidently many Americans still tend to see the teacher not as he is in himself (or herself). He is seen through a glass, darkly, on which appears the image of the stereotype, Ichabod, distorting the image of the real person to make it conform to that of the stereotype.

Lack of respect for authority, therefore, especially the authority of the teacher, has deep roots in our history. Even in the nineteenth century, when as a rule there was better order in our schools than at present, English and European observers noted divergence from the pattern of their schools. Our English friend Harriet Martineau found our children "spoiled, pert, and selfish," and thought they were given too much rein; but she thought them happy and mentally alert and therefore concluded that their freedon was a gain. An English merchant of the 1840's was

"struck dumb" by the precocious independence of the American child. He says, with tongue in cheek, that he knew of one who ran away from home when only five months old. When caught, the child was master of the situation, saying, "I heard they's going to call me Jotham and I jes' lit out."

Toward the end of the century Paul Bourget, a French commentator, was distressed to find in our children so little of the naive, so little timidity, deference, and even awkwardness. He would have given much, he says, to see more capacity to blush, more "credulous simplicity" and less aggressiveness. About the same time one of our teachers, into whose school came a small group of children from south Germany, made this comment: "They seemed for one term to be a different species. They had not been cowed, but there was a charm of deference, a delicacy of consideration, and a capacity to blush which stood out in strange contrast to the mass of our pupils. Within a few months, I could see that these pretty ways could not be retained in the new atmosphere."

Accustomed to thoroughness and strict discipline, the Germans as well as the French and English have been surprised at what they see in our schools. Early in the 1900's one Dr. Dunker found everywhere "quickness of judgment, self-confidence, superficiality, dilettantism . . . and lack of solidity in matters of detail." He charged that we coddle our children and that we have no severity whatsoever in our standards. And Professor Hugo Münsterberg, in his *The Americans* (1904), wrote: "A lack of reverence pervades the whole community and controls the family, the school, the public life. The pert American boy who does just what he pleases may thus get an early training in democratic politics; but while he wastes the best of the home and the classroom, he gets at the same time the worst possible training for the duties of life, all of which demand that he do later quite other things than those which he likes to do. He will learn too late that it is a great thing to command, but a greater thing to obey, and that no one can sign early enough the declaration of dependence."

III

It has been difficult at any time in our history for Americans to learn to obey. But if a hundred years ago our children were spoiled, pert, and independent, if fifty years ago they were knowing, irreverent, and aggressive, today there are increasing numbers, in the schools at any rate, who see little or no necessity for conformity or obedience. To the socio-economic troubles of our times—war, depression, divorce, etc.—we have added the "progressive" theory of education which, focusing on "learning by doing," attempts to develop the "whole child" by stimulating interest on his own level and, while encouraging the maximum of self-expression, at the same time rather paradoxically emphasizes "group adjustment" or "social living." No doubt John Dewey's philosophy of education, giving voice as it did to our deep attachment to both individual freedom and the "practical," has

much to be said in its favor; but as misapplied or over-applied by some of his followers in ways he probably never envisioned, it has dug itself into an absurd hole, and it has helped to produce a disciplinary situation in which self-expression has not led to social adjustment but to license.

Hence, in pursuit of these ideas of self-expression and practicality, we have small children, if they are studying the geography of Africa, spending several weeks in building a replica of an African hut in the classroom and, with the teacher's encouragement, prowling and growling about the room on hands and knees like wild animals. Or, if the subject is the chicken, a cage of our feathered friends is brought in so that the children can observe their behavior at first hand. After several days, of course, this can produce an unwholesome stink in the classroom. On the high school and college level, we have courses which show the young people how to behave on dates, how to drive, how to fish, how to make the dog obey, how to arrange flowers. These subjects, let it be said, are not just parts of courses; they are complete courses.

It is not my object to depreciate the "practical" insofar as it includes useful training, like courses in typing, auto-repair, welding, cooking and sewing, upholstery, and a host of similar activities. Such subjects have a useful place in the curriculum. But emphasis on them at the expense of the traditional, academic subjects like reading, writing, arithmetic, and their equivalents on the higher levels, plus the child-centered or interest-centered methods of teaching, have resulted in a watering-down of the basic subjects and much loss of respect for them.

More important for this discussion, emphasis on self-expression must be charged with an assist in our poor disciplinary situation. As I have pointed out, there are also other causes; but it is self-evident that somewhere a line must be drawn between legitimate, lawful self-expression and unrestrained license. In distressingly large numbers of our classrooms good teaching is becoming difficult at best and impossible at worst. Our child-centered system not only enhances the child's point of view at the expense of the adult's; it actually transfers authority to the child or youth, again at the expense of the adult. When charged with inefficiency in keeping order, the teacher replies, with more truth than waggery, "The teachers are afraid of the principals, the principals of the superintendents, the superintendents of the parents, the parents of the children, and the children of nobody."

In the eyes of the public the teachers are first on the firing line, directly responsible for anything and everything wrong in the schools. There are, of course, all kinds of teachers—good, bad, and indifferent. In many respects they are just like other people; contrary to the Ichabod-like image of them seen by the public, they are people too. In fact, most teachers are reasonably informed, well-meaning, hard-working, especially the latter. No one who has failed to experience it can understand how hard a teacher must work in trying to teach and

control from twenty-five to forty-five (usually about thirty-five) eager young egos bent on "expressing" themselves, two to fifteen of them with a tendency to shoot off at a tangent to the rest of the class and frequently doing just that. This for five to seven hours a day! There is truth in the teacher's claim that one hour in the classroom, in terms of pressures involved and energy expended, is easily the equivalent of two hours in most other jobs. Three hours, or four, some teachers in the elementary and secondary schools would say, some days! A teacher in many of our schools today must be a dedicated person in a real sense or need the job badly. Usually he does the best job possible within the limits of his personality, his training, and the system in which he works.

It is not, however, my purpose to exonerate the teacher from blame; he must share in it. I am sure there are incompetent teachers, as there are weak administrators and uninformed school boards. I am equally sure that we shall in the immediate future be forced to employ many more incompetent teachers—this distressing necessity because of the growing numbers of children pouring into the schools, because of the type of program and instruction given teacher-trainees in departments of education, and because of the general unattractiveness of teaching.

But the teacher takes his color and authority from the system, which responds to the needs and demands of the society it serves. Youth too acquires its personality from this society, directly and most powerfully from its parents in the home. American society—we, all of us, individually and in the mass composed of millions of home-units, are at fault. And since an effective solution involves deep-rooted attitudes in the character of this society, the solution will not be easy or simple; it cannot be accomplished overnight.

Certainly we do not want the stern, sometimes harshly tyrannical system of discipline which prevailed in English and European schools in the nineteenth century—as, for instance, described in the novels of Dickens—which still, though much softened, is in effect. The teacher must not be a tyrant; and he should be a friend. But somewhere a line must be drawn: he cannot be a pal, an accomplice to "goofing off," nor a stooge who tears his hair helplessly while youth, happily expressing itself, stamps about him and upon him. A line of authority must be drawn which age and experience must enforce and youth must respect and obey.

Ideally, "discipline" means self-discipline. As Professor Jacques Barzun, voicing the great old tradition of the liberal arts, has said, education is "the life long discipline of the individual by himself, encouraged by the reasonable opportunity to lead a good life." This definition includes the training of the mind with respect to learning and thought, but it also includes self-control. The child or youth who knows enough to control himself may be a slow learner or fast, but he gives himself every opportunity to learn and he does not get in the way of others.

Obviously the home is a very impor-

tant part of the process. If the child is not taught respect for order and authority by his parents in the home, how can he be expected to learn this and practice it in school or anywhere else? If the parents do not respect the learning and authority of the teachers, how can the child be expected to do so? And if the parents—the American public at large—do not recognize the urgent need for order in the schools and give the administrators and teachers the authority to enforce it when necessary, how can they expect the schools to do a good job?

Discipline imposed on the individual by threat or punishment is, clearly, not the best kind. Few human beings anywhere, certainly not the American variety, take kindly to it. But if this kind of discipline is needed—and it is—it must be enforced. The rowdies and misfits must be controlled. If they are incorrigible, they must either be segregated in special schools or ejected from school entirely. Education is not a right; it is a privilege which we want to extend to everyone, but it must not be abused. The incorrigibles must not be allowed to impede or ruin the training of the many youngsters who can and will profit.

We have our Declaration of Independence and the individualism for which it stands. But unrestrained individualism is anarchy. I submit that we also need a declaration of dependence; a recognition of the value of order, authority, learning, and more respect for them. More exactly, we need more support and respect for the authority and learning of our schools and our teachers. To repeat the words of Professor Münsterberg, "the pert American boy" who "wastes the best of the home and the classroom . . . gets at the same time the worst possible training for the duties of life, all of which demand that he do later quite other things than those which he likes to do. He will learn too late that it is a great thing to command, but a greater thing to obey, and that no one can sign early enough the declaration of dependence."

TEACHER EXCHANGE PROGRAM, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

More than 600 teachers from the United States and 42 other countries will take part in the 1958-59 teacher exchange program. Under this program, which is in its thirteenth year, 5,000 teachers from the United States and 64 other countries will have participated. One hundred American teachers will exchange positions with teachers from the United Kingdom. Others will be exchanged with teachers from 63 other countries.

In Moments of Reflection

Jesse Stuart

Is Walking Obsolete?

Before I was married, I never owned a car. I never bought a car until I was thirty-two years of age. That was the year of my life when Naomi and I were married. For the next three years she did the driving, for I couldn't drive. Then Jane was born. I learned to drive the car at the age of thirty-five.

Our car was not a luxury. Our car was a necessity. Cars had been advertised as something luxurious for almost a half century. And I don't have any intention of getting rid of my car. There are not any busses that pass our house. There is not a railroad or a streetcar line. For we live in a valley walled-in by hills. Our car is our lifeline for getting out! It is something we can use in an emergency as well as for pleasure. But our car, and about everybody's, which our present-day civilization has demanded of us, hurts us physically.

After I learned to drive I rode just about every place in comfort and I started getting soft. I stopped my walking. I had been a great walker. I didn't think about distances of twenty-five miles. I'd walk to the Riverton post office, a distance of approximately five miles. I had time to observe the wonders in the world around me. Each time I walked to the post office, I found something new.

I was younger then but my legs were as hard as dead seasoned locust. My leg muscles were powerful. I had developed these muscles much by walking and climbing hills. My father and mother were great walkers, too, as they never owned a car in their lives. My three sisters could walk miles. My brother was a better walker than I, since he was taller. Since we didn't have a road leading to my father and mother's home, walking was the only way we could go from our return to our home. We carried loads home on our backs. My mother and father would walk to Greenup and carry two baskets of farm produce which they bartered for groceries. They were always physically fit. All of us, parents, sons, and daughters, stayed in good physical condition.

It had been four years since I had walked five miles to Greenup. Since automobiles are not infallible, something got wrong with my car, and it wouldn't start that morning. So we started walking, hoping we might get a ride. I had to take Jane to Greenup for an appointment. That was one beautiful summer morning. Flowers bloomed along the road. Jane had never seen them at all, since we usually passed them in our speeding car. Jane was so elated with so many wild flowers that we stopped and picked until she had a small armload and I had a large one.

Fortunately for us, no one came along to pick us up. We walked all the way

to Greenup, where we gave our flowers to the girls who worked in offices. We gave three bundles to three secretaries, and they divided them with their friends. The walking that morning was a little tough, for it was much harder to walk on graveled and hard-surfaced roads than the old-time soft dirt road. One's feet do not have enough spring walking on hard roads. Jane and I walked all the way to Greenup on graveled and hard-surfaced roads. But we enjoyed our walk. Our walk was a technicolored travelogue in reality. It was something to talk about. When we returned, Jane told her mother she wanted to walk to Greenup again.

Now, even if we and everybody around us want to walk to Greenup, we can't. We are no longer free to do these things. Someone would drive along and ask us to ride. The country has multiplied in population and almost every family owns a car. If a father doesn't own a car everybody feels sorry for him and is ready to pass the collection plate to get him a used jalopy. The slogan is: *two cars for every family*. Where will we put them, since there are larger and faster cars on the highways, that are a half century behind the progress of automobile making? Where will they go? Well, anyway, walking is obsolete. It is outmoded.

If everybody in a single community would take a notion to walk five miles to a little town and no longer use their automobiles, the press, radio, and TV would move in on the strange situation. Perhaps a few doctors and psychiatrists would come too. This would be a story of international importance. To have such great modern convenience and then to have a community rebel on using it! This just couldn't be real! This would make a better story than the man who whipped out his pistol and shot six times through his TV set.

Since we have ridden in our cars for so long, even if we have to go only two city blocks, we are expected to ride. Riding has become habit-forming. Riding has become a mental dope; a fixed, habitual part of our make-up; and a sickening state of helplessness that needs to be studied seriously by every normal parent and serious-minded youth in America. And, for a whole community of men, women, and children to start walking five miles and back would be an unusual thing. Ambulances would have to accompany them to pick up those who couldn't make this five-mile journey.

Automobiles are necessary things for Americans. The teenage boy in America works and saves to buy himself an old car. Automobiles have become almost as essential to our well-being as the bread we eat and the clothes we wear.

Highways have been built at great expense over this country, from coast to coast, across mountains, deserts, rivers, lakes, and quays. These were built for our millions of automobiles which have made walking so obsolete that muscles seldom ever grow hard in anybody's legs. Why should they? If it is true what scientists have said—that when a part of our human body no longer serves any purpose it disappears—then how many more centuries will legs and feet be a part of our bodies?

It Sometimes Pays to Look Down as Well as Up

When I opened the garage door and walked in I was surprised to find a hummingbird. My walking in at the small side door from our front porch scared it. This bird rose up like a miniature jet and hit the concrete roof of the garage. The only reason, I figured, why it didn't kill itself was the short distance it had to take off in flight.

Now, I know I'd get the big garage door open and it could get out easily. So, I rushed over and raised this door. To my surprise, the bird still tried to fly up. It didn't know how to fly down from the garage ceiling which extended only a few feet above the door. I tried to shoo it down from there where it was buzzing around the ceiling and trying to hold onto the smooth concrete with its claws. But I couldn't get it down.

Finally, it flew over and sat on the big furnace pipe in the corner of the garage. It trembled all over with fright. I got behind the furnace and tried to direct it toward the high garage door but it rose up in its flight so hard and fast it hit the ceiling and fell to the floor. I ran over thinking I would pick up this wounded bird!

Before I got there it flew again. It tried to cling to the garage wall. Then, I ran back to the utility room and opened that door, thinking I might get it out this way. The hummingbird flew upon the furnace pipe again. It was fortunate that this was summer and there wasn't any heat going through this pipe.

Had this been a cold time, late autumn, winter, early spring, a time before or after blossoms, this hummingbird would not have been trapped in our garage. And if it had only looked down once to the big open garage door, there wouldn't have been all this commotion! It pays sometimes to look down as well as up! Even when one keeps his eyes level with the stars, his feet are on the ground.

I tried again and again to get this hummingbird out at the garage door, a door ten feet wide and eight feet high. I couldn't do it. I thought it was going to kill itself. So, I got a broom from the corner of the garage. Naomi heard our racket in the garage and came to watch this fragile bird, not any larger than my thumb, but with the speed of a bullet, butting itself on the garage ceiling.

"Wait until I run into the utility room and get a broom, too," she said. So, she ran out and came back with another broom, while the hummingbird buzzed its wings like a bumble-bee, and stayed up in the corner of the garage, parked there in the air like a helicopter. "Now let's get it out," she said.

We got behind with our brooms. We had the bird between us and the door.

"I might have to bat it down," I said, "I believe that is the only way we can get it out."

We moved up with our brooms, and frightened almost to death, it buzzed like a plane's motor before the take-off. With our two brooms we stood guard so it couldn't get back into the garage.

It had only one way to go! Forward! And it had to fly down two feet from the ceiling to the door. We forced it to do this. And when it went through the door into the blue windy space, it rose skyward like a fast flying jet.

It rose up and over the hill in front of our house and the last time I saw it, it was a dark spot silhouetted against a white cloud.

NIGHT BEAUTY

K. Stevenson Shaffer

Where, but in the darkness of the night
Are found moon shadows stretched across the grass
In elegance—or where may mortals pass
Through silver tinted lanes in sheer delight;
Heart hushed, with aching beauty as the bright
Star sparkles softly overlay the ground,
Till loveliness and mystery abound,
Bestowed in stillness by the generous night?

Where else but in the sheen of moon drenched earth
Can love teach tenderness or muffled sounds
Create a symphony? Amid the far
Orbits of heaven must come true beauty's birth.
O gentle night—your shining hours confound
The mighty from the first born evening star.

Societal Pressures and the Curriculum

JOHN I. GOODLAD

MUCH has been written about the need to examine society in determining what the schools should do. Much less has been said about the implications of societal conditions for what should be taught, how the content of instruction should be organized, and the educational climate conducive to learning. The intent here is to analyze several characteristics of present-day society that appear to have implications for education over a period of at least several decades. A long list of societal characteristics and their possible implications could be made. It is necessary, therefore, to be selective. The generalizations presented here are selected because they suggest implications that embrace a broad range of educational objectives, that can be stated rather specifically, and that demand far-reaching examination of existing curricula. Furthermore, the combined impact of these generalizations about society and their derivatives creates inestimable pressure upon humans to learn.

SOME SOCIETAL PRESSURES TO LEARN

This last statement brings us to our first observation about the society in which we live. *Today's children and young people grow up in a society that expects them to learn and to go on learning.* A person of early middle age can remember when completion of high school was thought to provide certain social and economic advantages. Today, many people regard the liberal arts graduate as having no unique advantages unless he complete specialized advanced training. A decade ago, the correspondence schools exhorted the value of a secondary education. Today, they cite impressive figures to support the claim that college graduates earn significantly more than high school graduates. Book clubs, record clubs, and other "dealers in culture" frankly appeal to education and the educated in building their mailing list and slanting their promotional activities. And now we appear to be entering the era of "education as national power." It would be difficult to believe that the goals and processes of education can go unaffected in such an atmosphere of pressure to learn.

Segments of society bring their particular concern for learning to bear upon the schools in unique ways. Many parents view the road up for their children to be an educational one. Schooling provides assurance that life for their children will be better than the life they themselves have known. Others view education as a part of one's birthright. The notion that "it" (often defined quantitatively) might not be forthcoming is simply unthinkable. Sometimes, they have difficulty in accepting a child's limited ability rather than teacher ineptness as a possible block to educational attainment. For still others, education is an assurance that, come what may economically, poverty will be at least genteel. Education thus promises participa-

tion in the true good that rises above the mere material.

These various, often-conflicting voices provide no clear-cut directives as to what our schools should do. The very disparateness and, on the whole, sincerity of the points of view expressed, however, suggest the need to examine them carefully in setting forth educational goals. Certainly, these differing expectations for education create pressures to be reckoned with in conducting the educational enterprise.

We live in a society that uses a complex variety of communication systems and places a premium on learning the communication systems of the groups to which one would belong. Although freedom to move rather freely from group to group is a prime ideal of the democratic society, there is a tendency for various groups to wall themselves off from other groups through the development of unique communication systems. Failure of an individual to learn the communication system (perhaps because the opportunity is kept from him) denies him group membership. Group members control the perpetuation of their group by controlling the educative process through which the communicative system is learned.

One example of a group communication system not readily available to all is that of certain old-line families. Very carefully-guided internships are conducted by family adults or trusted long-time employees. This is a subtle kind of learning accomplished, probably, only by growing up in the family. A second type of group maintains its integrity in part by developing a mysterious code. This communication system is carefully controlled by those already admitted to the group. Obvious examples are the Masons and both social and professional fraternities and sororities. Such groups make a certain appeal to the desire to be set apart. Groups such as labor unions have a different sort of appeal and their correspondingly unique communication systems. The concept of "together we grow strong" is woven into the organizational fabric and ties the membership together. A new labor leader may express himself in novel ways and may stray to some extent from behavior patterns deemed desirable in the larger society. But he dare not deviate from the basic tenets of the movement nor fail to communicate its ideals in forthright fashion.

Most persons belong to several groups. Personal anxiety sometimes is caused by the necessity of learning several communication systems and of adjusting to their often conflicting demands. Intergroup tension arises from failure of one group to understand the communication system of another and thus to become suspicious of that group's intent. The danger to a democratic society arises not so much from the presence of such groups but from any lack of general opportunity to learn the communication system and thus to make intelligent judgments about a group's goals and the desirability of personal affiliation. This danger creates perplexing dilemmas and pressures for our schools.

Rapid advances in technology and communication have pushed formerly far-flung regions of the world into an elbow-to-elbow relationship that pre-

dates the development of any international language for clarifying this relationship. Very recently, the old and the new lived in separate worlds, each seeming right unto itself. Now, much of the world constitutes a monstrous anachronism with the old and the new standing glaringly side by side. Romantic notions of quaint differences among peoples fade, to be replaced by the grim knowledge that different people see the same things as different. Red becomes green and right becomes wrong; one language appears not to be superior to another as a vehicle for conveying a common understanding. Diplomatic leaders despair on discovering that interpretations of their written and spoken words convey inadequate and distorted meanings to certain strategic audiences.

Studies in linguistics suggest that an awareness of language and how language interrelates with the rest of culture leads us away from the assumption that thought and ideas are universal and can be put into words by all langauges in much the same way. Linguistic scientists tease us with the intriguing hypothesis that native speakers of different languages see the world in amazingly different ways *because of the different ways languages structure experience.* If this be fact rather than hypothesis, to think that we can bring about inter-cultural understanding through reading stories about the quaint customs of other peoples is to be naive. Perhaps, instead, we must come first to see the very way in which language structures one's perceptions of reality and thus come to see several different realities, one not better than another simply because it happens to be ours and not somebody else's. Some pressing problems for our language and social studies curricula lie before us.

The body of knowledge now available to man and the variety of techniques for discovering and exploring knowledge have long since surpassed the capacity of an individual to encompass them. Much of the knowledge possessed by man is disorganized or, at best, organized for self-containment. It has been organized for preservation rather than for dissemination and human integration. And much present organization is geared to the scholarly demands of uncovering new knowledge. Furthermore, the rate of communicating knowledge lags behind the pace of its uncovering.

Much of what one receives as knowledge is yesterday's knowledge, already outdated by new explorations and findings. We readily recall "facts" taught in bygone days and are startled to realize how much of what was dutifully learned is no longer fact. To what extent was the teaching of such facts in our schools a disservice? Obviously, there can be little understanding without facts. But, unfortunately, there can be facts without understanding. What is the school's role as a synthesizer of knowledge? As interpretive agent assisting the learner in the search for integrative principles around which new knowledge can be organized and thus supplant the old? The need for schools to find effective curricular means for dealing with knowledge is among the most demanding of pressures.

The rate of freeing man from his

daily labors far surpasses the pace of freeing man to indulge fully in the rich and productive use of his leisure. Many of those persons gaining the greatest amount of leisure time lack the personal resources for using this time creatively. And so they turn to goods and gadgets that provide a few hours' diversion. The luxuries of yesterday became the necessities of today. It has been facetiously observed that the mass drive for such goods may well force men back into a longer work-week in order to be able to purchase the gadgets required for their leisure!

Today's adult frequently grew up equating education with earning a living rather than with enjoying life. Furthermore, he may well have been reared in a home where work was a virtue and leisure a sin. The role of the father and husband was to provide for his family and in so doing he established himself as worthy in his own eyes and in the eyes of others. Work took on a religious significance with all the accompanying spiritual connotations. Little wonder, then, that increased leisure for some brings with it an uneasy sense of guilt. Resulting anxiety prevents the individual from mobilizing his energy creatively and valuable time is frittered away aimlessly. Bored and frustrated, he may plunge into a second job, joining the ranks of the "moonlighters." Perhaps the resulting physical fatigue is better for him in the long run than the emotional draining that might well occur otherwise. But in neither case is he refreshed and invigorated. He perishes without dying never knowing what might have been.

There are obvious implications for adult education in the above. But with all the progress that has been made in this field during the past decade, only the barest surface scratching, in comparison to what will someday be, has occurred. It is conceivable that the ranks of the adult educators, within the forseeable future, will outnumber the combined teaching force of all other levels and types of education. There are clear implications, too, for the creative behaviors that goals for all educational institutions must embrace. In the course of the exciting journey toward the attainment of such goals, human beings everywhere may come to have at least some understanding of the power of education "to set the human spirit free."

Some Implications for the Curriculum

In examining the curricular implications of the foregoing, let us temporarily pass by the first observation. Today's pressure on young people to learn is a pervasive one; in fact, such pressure represents the combined impact of all the others. And this impact profoundly influences the classroom climate for learning and teaching.

Let us turn, then, to the generalization about groups and inter-group communication. According to linguistic scientists, physiologically normal persons learn the complex systems through which human communication goes on by about five and one-half years of age. Before entering the first grade, then, a normal youngster acquires language, kinesis, vocalizations, and so forth. He has learned something of the power of

language and with facility uses his voice to express surprise, terror, joy, and anger. The range and depth of these important learnings, unaided by formal schooling, is impressive.

We tend to assume, however, that since the child can't read when he comes to school he must be taught his "language." But we really confuse language and writing. In part because of this confusion we place a high premium on writing and the reading of writing. Surely we aren't assuming that no communication can go on before the child learns to read and write. Obviously, a great deal of communication takes place among six-year-olds who cannot read and took place for years among these children before their arrival at school. Furthermore, each little sub-group has been busily learning a special "language." The "blue stocking" child learns the communication system of her set whether or not she learns to read and write. Similarly, the electrician's son learns the language of the labor group whether or not he learns to read and write. Frequently, we can scarcely identify the various communication systems let alone understand and teach them.

Most of us believe that the opportunity for all to learn to read and write is the greatest culturally-unifying force in a democracy and it may well be. But a formidable one, too, is the opportunity to learn through the public schools the subtle communication systems of the various groups and classes that make up our society. Should not, then, the goal implied parallel the reading and writing goals held high for elementary education? Can such a goal be adequately achieved so long as formidable segments of our population, whether by choice or circumstances, never participate in the necessary inter-group communication? And in this period when ability grouping is being re-discovered we must examine the extent to which this practice, proved advantageous in the achievement of certain education goals, may be equally disadvantageous in the attainment of others. Significant progress toward the goal of inter-group understanding (certainly demanding the learning of group communication systems) may require a scheme of classroom organization wherein learner heterogeneity is deliberately planned. In this way, the schools would provide opportunity for individuals to learn the unique communication systems of many groups as well as to read and write.

In the first part of this paper it was suggested that the elbow-to-elbow relationship of people around the world today carries significant implications for our language and social studies curricula. The social studies program is vitally concerned with problems of human living and relationships among people. Where and when one lives in large measure determine the character of the problems of living one must face and his relations with others. These problems, their environmental genesis and their disposition in the hands of men, became the catch-hold point in social studies instruction. But, too often, our social studies programs are a far cry from such procedures. Their learning circumscribed by a textbook, students move ploddingly forward with placenames, products, and land features stripped of

the human struggles with which they might readily identify. Little wonder that children express great interest in topics that belong in the social studies but boredom and dissatisfaction with the social studies program itself.

It becomes evident that the content of social studies curricula, especially in the lower grades, requires overhauling. Is there any good reason, in these times, why pupils of eight and nine years of age should not study the customs of other peoples? It has been argued that students cannot meaningfully study other times and places until their time-space concepts are well-developed. But the aspects of culture young children might study most meaningfully do not demand such understandings. It could be argued, too, that our schools already give much attention to the study of other peoples. They do, but the emphasis is historical and geographical, with much of the latter being of the casual "tourist" variety. A much greater infusion of anthropological and sociological content is called for. Such material is of immediate interest to children and youth. It would be necessary, of course, to organize it so that the developmental levels of the students would be respected in regard to both content and reading level.

If the experience be the sole determinant of one's reality perceptions, then the study of different cultures through the approach indicated above may well be adequate. But if thought and ideas depend, too, on the nature and structure of the language vehicle, then something more is called for. Studying a culture without paying attention to the language portion of that culture, if language contributes to the structuring of experience, would result in a serious gap in seeking to understand a people. The beginning point, most probably, is in the study of the structure of our own language and linguistic scientists have indicated both content and method for such study. Unfortunately, their recommendations are only slowly finding their way into the secondary-school curriculum and scarcely at all into the elementary school. Specifically, these recommendations suggest greater emphasis in the lower grades upon the differential aspects of language; that is, the elements that give a language its internal structure and unique characteristics, quite apart from the inferential or referential aspects to which we normally pay much attention. For example, *hat* is different from *hot* because of the internal characteristics of the words as well as because of the different meanings we attach to them. At higher levels of schooling, where the teaching of formal grammar is introduced, this recommendation would call for the substitution of grammar arising out of differential language considerations for the referential grammar that has predominated traditionally.

While such analysis of our language has significance in its own right, we are not likely to move forward from such studies to greater understanding of other cultures. An understanding of differing reality perceptions among various peoples may well be enhanced, however, if study of the structure of our own lan-

guage is accompanied by a study of the structure of another. This may well prove to be the strongest argument for inclusion of a second language in the elementary and secondary curriculums.

Our next generalization about the society in which we live refers to the staggering amount of knowledge now available to man, much of it disorganized or, at best organized for preservation rather than instruction. The amount of specific information that can be digested in, say, twelve years of schooling bears a relationship to that available for learning comparable to the relationship between a handful of straw and heaped tons of it in twenty scattered silos. To think, then, that we can meaningfully prescribe *the* content for elementary and secondary education is to be unrealistic. It should be possible, however, to select appropriate, representative content for revealing the methodology and organizing principles of given fields of knowledge.

A significant task for educators is the identification of curricular organizing elements drawn from both the methodology of inquiry and the results of inquiry in the various fields. Thus, from mathematics both processes of deductive thinking and concepts of number, quantity, and relationship are derived. In history, we see an historical method wherein human decisions are re-constructed and certain generalizations about time-place determinants emerge. The selection of organizing centers—catch-hold places for teaching and learning—in the curriculum is then guided by the clarity of the relationship between the proposed centers and the methodology or the particular concepts, skills, and values deemed worthy of long-term educational development. Naturally, the content introduced in the process must have value in itself, but the maturity and concerns of the learners can now be considered realistically in choosing one classroom activity over another.

Through the curriculum building process suggested here, relatively stable guidelines for instruction are determined. It is conceivable that they would facilitate some nation-wide agreement in curriculum planning. And yet, teachers and learners would still be free to decide locally upon the specific catch-hold points to use in day-to-day learning. The deadly weight of "having to cover" prescribed content that already may be out of date is removed without belittling the value of content carefully selected to reveal methodology and first principles.

The inability of millions of people to engage productively in the creative use of their leisure time readily poses two major educational implications. We already have ample evidence to suggest that most adults, with only a little well-timed guidance, could learn to plumb the depths of their own experience with considerable insight and to express these insights in a variety of creative ways. The increase in leisure time and in our knowledge of the unfortunate mental health concomitants of using this time poorly suggests the present urgency of tapping the folk arts of the American people. Increasingly, our communities must have centers to which our people may come and where, with the skilful

guidance of qualified teachers, they will explore various artistic media. It is often said that America is in a period of adolescent culture. With the advent of general adult participation in the arts, we will have entered into an era of cultural maturity.

An obvious corollary paralleling the inference for adult education is that today's young people must have ample opportunity to participate in the arts, programs for which are not yet well-established in elementary, secondary, and higher education. There is an alarming tendency for boards of education, when under budgetary pressures, to eliminate any existing special resources for art and music in the elementary school. These subjects are sadly underrated electives in secondary education. And only a handful of colleges give to art and music anything like the attention paid to athletics. In fact, these two departments frequently (and illogically) are among the most undernourished of the liberal arts constellation. Throughout the hierarchy of organized education, there is appallingly little planned provision for challenging human creativity and channeling its expression through the arts.

Toward Creative Learning

This last observation turns us back full-cycle to where this paper began: Today's children and young people grow up in a society that expects them to learn and go on learning. Societal pressures to learn exert their ultimate impact upon the human organism. If this impact creates undue anxiety, the human organism will not, can not, learn up to the full potentiality for learning it possesses. Energy subsequently consumed in coping with this anxiety is lost to meeting the challenges imposed by a demanding society.

Optimum human achievement appears to be the product of blending intelligence, motivation, energy, and creativity. Educational institutions can create the climate wherein optimum blending of these human characteristics may occur. First, they can endeavor to screen out those societal pressures that create unrealistic, damaging expectations for learning. Among the most vicious of these is the expectation that all individuals can achieve a given standard equally well, especially when this expectation is accompanied by the connotation that there is something disgraceful or sinful about failing to achieve such a standard. Second, educational institutions can place emphasis upon appropriate ends of learning. Ends that encourage processes of intellectual inquiry are appropriate; ends that place the search for teacher approval above the search for truth are not. Third, educational institutions can seek for order in the curriculum; order of such nature that the timing and pacing of individual learning can be meaningfully guided. Anxiety is as likely to grow out of the tasks of education as to be carried into them and can be prevented only by careful planning. Fourth, educational institutions can seek to keep open-ended the basic human drive that is creative expression. For, most assuredly, without creativity the human spirit shall perish.

The Network and the Blackboard

K. V. Bailey

Reflections on television and education with special reference to experimental work in the United Kingdom

This study falls into three sections. First, television in relation to education is considered under its most general aspects (Sections I and II); second, there is a description of some of the experimental school telecasts now being made in Britain (Sections III to V); and third, relevant problems are discussed with which both Britain and the United States are in common, though with varying degrees of urgency, concerned (Section VI and VII).

I

One of my favourite bedside books is the Letters of William Cowper, what Coleridge called the "divine chit-chat." Of letter writing itself Cowper wrote "There is a pleasure annexed to the communication of one's ideas, whether by word of mouth or by letter, which nothing earthly can supply the place of, and it is the delight we find in this mutual intercourse, that not only proves us to be creatures intended for social life, but also fits us for it."

William Cowper was not in sympathy with the idea that man's weakness and his necessities drew him into the gregarious state. He found it "more reasonable, as well as more honourable to my species to suppose that generosity of soul and brotherly attachment to our kind, drew us as it were into one common centre, taught us to build cities and inhabit them, and welcome every stranger that would cast his lot among us, that we might enjoy fellowship with each other, and the luxury of reciprocal endearments, without which a paradise could afford no comfort."

The poet lived the most creative years of his life in and wrote most of his letters from the Buckinghamshire villages of Olney and Weston Underwood —villages set among those quiet lanes and reedy water meadows where the Great Ouse winds its way through the English Midlands. Almost the only time he stirred from Buckinghamshire was in 1792, when to visit William Hayley he made the coach journey of about a hundred miles to Chichester on the south coast; and of that he wrote: "This journey of which we all had some fears, and I a thousand, has by the mercy of God been happily and well performed, and we have met with no terrors by the way."

That leisurely letter-writing world seems more than the span of a few lifetimes away. We cannot live in it. "If my windows do not command a view of the ocean, at least they look out upon a profusion of mignonette" wrote Cowper. Our windows today look, whether we

like it or not, upon the oceans—the restless tides of peoples and commerce, the oceans of the air and of space: and the wavelike flow of human knowledge and human communications pushes through and penetrates our waking consciousness without cease.

And yet how enduring is Cowper's truth that at root our civilisation rests on our capacity to "enjoy fellowship with each other." There is much in our 'oceanic' situation that tends to disrupt this fellowship—and in so far as this happens our situation tends toward the disruption of civilisation. There are many elements in the force we are now to consider—the phenomenon of television—which are disruptive and which make for fragmentation; but there are perhaps more that wisely used can help us to "enjoy fellowship with each other . . . without which a paradise could afford no comfort."

Before each news programme televised by the BBC there appears on the screen the Corporation's crest across which runs its motto: "Nation shall speak peace unto nation." The ensuring sequences of riots, refugees, robberies and rocketry sometimes throw back a fierce irony; but in its role as a positive agent television can fairly and in practice must claim some of the purpose and idealism of that motto.

II

"No man is an island." The pattern of our common culture and of our interdependence is traced very clearly on the television screen. Let me sketch my home scene this very evening on which I am writing. A dense January fog has spread through England and Wales: transport is almost at a standstill. My wife and I earlier gave up plans for visiting friends in the next village and we have been instead sharing pleasures and ideas with people three counties, a country, half a continent away. Things warm up with half an hour's Eurovision network transmission from the European Ice Skating championships at Bratislava. "There is no snow here" says the British commentator. "In fact the only snow I have seen was covering the ice floes as we came down the Danube." Then the following news magazine programme is cut short—contributors are stranded in the London fog unable to get to the studio. Vision switches over to Manchester, less fogbound, and for an hour we are inside the Free Trade Hall. This is the centenary anniversary of the first concert ever given by one of Europe's finest orchestras—the Hallé, in this same hall, or at least in the hall from whose wartime ashes the present Free Trade Hall arose. The orchestra is playing again that first item with which "Mr. Hallé's Band" opened its career at this time and place a hundred years ago—Weber's 'Der Freischutz.' With an almost eerie sense of wonder we feel television spanning time as well as space.

Then Clifford Curzon comes on to the platform. He receives a tremendous ovation—it is his first public appearance since the Queen honoured him with the O.B.E. a week or two ago. The cameras range the audience. There is the Princess Royal, Viscount and Viscountess Harewood, the Lord Mayor of Manchester.

Sir John Barbirolli picks up his baton and with him the orchestra moves into Brahms's Second Piano Concerto. (As I watch the orchestra my thoughts are led to a direct transmission seen a night or two earlier—Sir Thomas Beecham being interviewed on a warm balcony overlooking the Mediterranean, the lights of Monte Carlo spread below him—"Their business is to play the notes and leave the rest to the conductor.") This music has not the perfect acoustic of a studio recording; a cough rings staccato across it; but that joy of participation, the feeling of being enclosed against the raw streets, the harsh fog, within a bright dome of music, the magic of the concert hall, fills our consciousness. This is the gift of television.

So I have written my impressions. Then just before going to bed I switch on the screen again. The headmaster of a school, less than five miles from my door, I see sixty miles away in a Birmingham studio. He is discussing with a newspaper man and with the head of one of the commercial T.V. companies, some strictures he has made on indiscriminate viewing and the effects of violent and tasteless programmes on schoolboys. He pleads for the increase in television programmes of those things which he would recognize as providing good entertainment or as adding to our knowledge and cultural experience. My wife and I talk this over together. Then for a nightcap we turn over to another Channel for a late cabaret from the Roosevelt Memorial Polio Fund Dinner in Glasgow. Some of Scotland's most popular artists have just driven in from Edinburgh. "It's nice to be back in Scotland," one of them cracks. A singer from London apologises because the fog has prevented her dress from arriving; and another singer, who caught the last plane out of London before the fog shut down, wonders how she will get back for a rehearsal next morning.

This actual record of a few hour's viewing I hope may convey something of what I mean when I say that television is our window on to the ocean of the world. Or to take our metaphor from Cowper round full circle, on to our 'mignonette': because television, while under one aspect it is a staggering marvel spanning space, under another is one of the many shrinking agents of our time reducing the world to a village and the wide prairies to a lawn we can cross merely to say hello.

Our screens are reflections of the world's places (and even of its weather), of its people, and of ideas past and current which enter into and furnish our minds. They form some of the raw material of which our out-going speech, writings and actions are compounded. Under this definition there are large areas in which the experience of television and the experience of education overlap. Television is too powerful an agent now to be pushed into a corner of our consideration among the lesser human activities. It is here to stay and must be taken into account whenever the direction and development of education is at issue.

But education, as we will now more formally consider it, is a selective procedure. In its exercise we select and knit

in to our experience those things which are relevant to specific structures of thought and action. Schools are places organised to help us to do just this. Let us grant the bivalency of television in its power to stimulate, to fragment, to inspire, or to enervate our normal stream of consciousness. The question we must then ask is how can the teacher make an attachment of the positive elements in this power to his own selective techniques and constructive purposes?

III

My concern here is to describe some of the ways that this problem is being tackled in Britain. In the United States I know that experiment has taken many forms, ranging from the use of television as an instrument for the mass dissemination of the factual lecture or demonstration, to its uses in the communication of experience within a community—telecasts from the classroom, for example, designed to give parents insight into the education of their children. In Britain there are neither the variety of environments nor the multiplicity of broadcasting systems that there are in the U.S.A. Consequently, in Britain, school television like sound broadcasting for schools, has come chiefly from central sources and, has been transmitted by a very limited number of organisations—to be precise only by the BBC and on certain networks by one of the commercial companies, Associated-Rediffusion.

Commercial sound broadcasting in Britain does not exist. Consequently there is only one authority sponsoring school broadcasts in sound—the School Broadcasting Council for the United Kingdom. It is a sub-committee of this body, largely composed of teachers, which commissions also the BBC's school telecasts. The present sub-committee was formed in 1956, and the first year of what is thought of as a two-year experiment in school television ended in August 1958. Obviously it would be premature to attempt an assessment of so limited a number of individual telecasts, covering a range of only some half dozen subjects. Associated-Rediffusion has at the time of revising completed four terms of school television, but neither the BBC nor the Independent Television Authority has yet sufficient evidence to be able to present comprehensive public reports.

What it is possible and legitimate to do is to review the possibilities which seemed to emerge from the BBC's original pilot experiment and to see which of them have led to concrete programme contributions.

The assessment of television's impact which I attempted in the first paragraphs of this essay may be summed up in the phrase "immediacy of communication." Although television is a one-way communication, it is a truly social communication, because the recipient is sharing the temporal and to a lesser extent the physical environment of the communicator. This immediacy is capable of inducing a peculiarly active state of mind and can indeed stimulate among a group of viewers a common awareness of participation. To give a commonplace but significant example, the marked development of popular enthusiasm in Britain for such "minority" sports as show jumping and rugby football cer-

tainly owes something to this process. Such events as the centenary concert I described earlier or even more emphatically the televising of such events as coronations, elections, state visits, underline the power of the impact of immediate communication.

If analysed this quality of immediacy can be broken down as follows: first, the event is taking place at the same time as it is seen and heard; secondly, the purposes and consequently the techniques of the television production are to convey the picture to an audience known to be there at that time; thirdly, the television screen is a homely and intimate apparatus and is subjectively accepted by the viewer as a means of direct communication with the broadcast, and fourthly, even when the person or scene televised is not actually present, but is presented on film, the effect of these other characteristics of television is at once to place it in the context of immediacy and to augment the directness of its impact.

All of this applies more forcibly to the documentary type of programme than to drama or, let us say, the showing of an old movie—though even here the psychology of viewing is different from that of viewing the same thing in a theatre.

IV

It is in this field of documentary or instructional programme that BBC school television has made its most rapid strides. In the series "Living in the Commonwealth," for example, filmed material has been edited into a framework in which the man or woman who intimately knows the land is the chief protagonist. In such a context film inserts—whether of irrigation in India, logging in British Columbia or ranching in Australia, are presented personally; and the various other aids—maps, moving diagrams, specimens, studio reconstruction, also bear the impress of a personal experience.

Thus, although television has this facility easily to bring together a number of visual elements, it is less the ability to do so than the manner and occasion of doing so that puts it in a special category as a classroom aid. This brings us to another distinctive characteristic of the BBC's experiment—continuity. Now television generally owes much of its appeal to the acceptability of a recurring pattern. This is true not only of the tritest of serial plays but also of the best of documentaries. Of the BBC's science series "Eye on Research" I heard someone say recently "I don't miss that. It's my regular evening class."

So also in the classroom television, while it suffers as compared with the classroom film in not being repeatable, has this great advantage—that its contributions can be arranged in the form of series having all the attractiveness and power that familiarity and a progressively accumulative impact can command.

In the BBC's experimental science series, or for example, "Science helps the Doctor," children who knew nothing of electronics were led from the familiar television tube step by step to a glimpse of the X-ray at work, to seeing "live" demonstrations of the uses of radio-active isotopes in medicine and to some understanding of the principles of the elec-

tron-microscope. No teacher could command the apparatus used nor could they without television enlist the help of an eminent physicist and a doctor week by week—guides with whom the children grew familiar and whom they looked forward to meeting.

One of the problems of school television is, however, pin-pointed here. While teachers are glad to have specialist colleagues on the television screen, the difficulties of timetabling, and of adapting the syllabus to make the best use of them, are great. This has always been a problem in sound broadcasting, but with classrooms liberally provided with loudspeakers it has not been too difficult to bring together class, teacher and broadcast at the appropriate time and stage. At present financial restrictions have prevented more than a quota of schools from being officially equipped by Local Education Authorities with television receivers for the BBC's experiment, and this only on the scale of one receiver per school. Including schools with privately bought sets or with sets given to them by Associated-Rediffusion Company, there are probably fewer than 1,000 viewing schools in Britain.

It remains to be seen how far television and the schools can find the right balance between the autonomously conceived school syllabus and the centrally planned television series. Meanwhile in addition to telecasts bearing on syllabus subjects (and those in the current year will include biology and mathematics) the BBC is mounting certain series where the connection with formal subjects is less strong. Through these television can bring quite new experiences into the classroom—the performance of Macbeth, the visit to a great seaport (Bristol), a study of occupations (horticulture, the building industry). These are the kinds of experience which schools do try to bring about by arranging excursions, but they find their range limited by time, distance and money available. Television brings the outside world to the classroom. There are, too, the current affairs type of broadcast, which bring sudden and unexpected opportunities to teachers. Within a day or two of the launching of the Russian Sputnik I thousands of children viewing the BBC's school series "Spotlight" were watching its progress from the classroom and hearing about it from astronomers and physicists from our radio observatories.

V

Generally, both teachers and the BBC see in television something which the teacher must be instrumental in making fully effective. It is certainly too early to draw large generalisations, but perhaps I may quote an example from my own experience. Some time ago I visited a newly equipped school to view with a class of 13 year old boys a programme on "Sounding the Atmosphere" in a unit on "Science and the Weather" (this, like all the present experimental units was designed for children of secondary school age). In the programme the cameras visited a meteorological station near London to describe the sending up of a sonde balloon, to record the radar tracking of it and to explain the data compiled from its messages. Afterwards the teacher told me that if he had been

told that so much information was to be put into a telecast, he would have said that it could only lead to confusion, but the clarity with which the various stages were set forth and the care with which the enlarged pictures and detailed explanations of model apparatus were given, enabled the audience to assimilate them quite easily. He was surprised on this first viewing at the amount of follow-up open to a teacher. It seemed to him that if television were to be used as part of a syllabus it must take a very leading place.

A view common in the early days of sound broadcasting to schools, that the radio would abrogate the responsibility of the teacher, has been heard again; but much of the evidence now to hand seems to indicate that the form school television is taking in Britain is winning the confidence of the teacher. Many are seeing it as an ally. Early in 1958, for example, a conference on "Television in Schools" was held at the Institute of Education in the University of Oxford. Mr. F. Bignold of the Headington Secondary School, Oxford, spoke at length of a recent telecast on Saskatchewan, Canada. In an account in "The Schoolmaster" (24.12.58) he is reported as follows:

> This was an excellent example of straightforward teaching from the television screen. The 'teacher' was a professional actor born in Saskatchewan; this added to the human interest and gave him an aura of authority modified by a friendly intimacy, and he was able to move freely about the studio, putting on a performance that he had by heart.
>
> Mr. Bignold's main point was that use of the 'teacher', animated diagrams and filmed material blended much more satisfactorily into a whole experience through the amalgamating medium of the television screen. Using filmed material in the class, he would have to stop a projector, advance self-consciously to the front of the class, and perhaps remove a screen, before continuing the lesson.

Conferences of this kind are regularly arranged both by the School Broadcasting Council and by external bodies such as university Institutes of Education. They are one of the means by which a thorough exchange of views is effected. The BBC also receives reports on sound and television broadcasts from panels of reporting teachers and these teachers receive timely bulletins analysing their reports. At the beginning of each term notes on coming broadcasts are distributed and for many series schools can purchase sets of booklets containing illustrations and incentives to practical work. For example, in the current television science series on "Animals with Backbones" the BBC has distributed free to all schools using it a folder containing over twenty drawings of types of vertebrates, an outline plan for the construction in class of a large scale time-chart, and brief notes on all the programmes. The BBC also issues a large publication with coloured illustrations and detailed notes, the work of museum authorities, which schools can buy to supplement both sound and television series on this subject.

The point is that the BBC is not aiming to present ready-made "lessons" or lectures. Through its sound broadcasts it may, for example, try to take children on an imaginary journey into the past; or in its television broadcasts to bring

together a great variety of visual aids and teaching techniques. But whatever its methods the underlying purpose is to present, to the teacher and children alike, a common experience which it is for the teacher to make use of according to the requirements of his particular educational task.

VI

We have come rather a long way from those general considerations which sprang from the social philosophy of that gentle poet Cowper: and we have arrived at considerations of classroom practice. But there is no irrelevancy. It is because television is so much a part of the language of our time, so essential an element in our system of social communication, that its appearance in the classroom brings with it no sense of artificiality or strain. There were those bitterly opposed to it. Before ever a single transmission went out Sir Eric James, the High Master of Manchester Grammar School, had said at a London meeting of the School Library Association that "a television set for looking and listening to the BBC, and still more for looking at the Independent Television Authority would enter Manchester Grammar School over my dead body."

Since the programmes have been received in schools, however, teachers with experience of it are tending to agree in principle with Sir Charles Morris, the Vice-Chancellor of Leeds University, when he says "We all need to do a great deal of hard thinking if we are to rise to the challenge of television."[1] Many teachers are finding their practical assessment in agreement with that of M. Henri Dieuzeide, Head of School Television in France. Television, he believes, "is a stimulus to talk, to acting and to play all of which reveal the tastes, the lasting interests, the anxieties of the children—and very often their true vocation." Through such effects he finds that "television encourages variety rather than uniformity in teaching techniques."[2]

VII

But this hard thinking that Sir Charles Morris advocates must apply to television as a whole and not simply to its classroom application. It is here that educationists find grounds for worry. In considering, for example, give-away programmes (which, incidentally, the BBC excludes from its output), Harold R. W. Benjamin believes they "furnish one of the most arresting examples of the widening gulf between the school and its society."[3] In Britain there has been much disturbed writing in the press and a number of public statements by teachers on the rising tide of cruelty and violence which from television screens sometimes flood into children's homes.

Certainly far from encouraging nations to speak peace unto nation, far from helping to realise William Cowper's social necessity for the communication of civilised manners and ideas, some television programmes continually pander to, and by implication lionize, those

[1] Forward to *The Listening Schools* by K. V. Bailey, BBC, London, 1957.

[2] *Television and Teaching*, Institut Pédagogique National, Paris, n.d.

[3] *And with the Other Hand . . . A Weapon*, THE EDUCATIONAL FORUM, Vol. XXII, No. 1.

human traits which when let leash have always led to disintegration and destruction in society. In fact our Buckinghamshire poet had he lived today might have written of the mixed blessings of television rather in the style in which in "The Task" he apostrophised the metropolis:

O thou resort and mart of all the earth,
Chequer'd with all complexions of mankind,
And spotted with all crimes; in whom I see
Much that I love, and more that I admire,
And all that I abhor.

Adding perhaps his lines to emphasize the responsibility of the few:

Ten righteous would have saved the city once,
And thou has many righteous—Well for thee—
That salt preserves thee.

There is in fact this new and unavoidable responsibility approaching the teacher. Many children in Britain now watch television for five hours continuously each evening. Mr. J. Radford, who has recently published parts of "A Survey of the Leisure Time activities and attitudes of children in a mining village," has shown that there is a quick move away from programmes of integrity in homes where, with new commercial channels opening up, the lighter and less responsible types of programme become available. He concludes, and I think that his conclusion is as valid for the U.S.A. as it is for Britain, that "The building up of taste, like so many other aspects of education, is a slow process which will only bear fruit in the distant future. The school cannot shirk its duty in this respect because in many homes there will be little constructive criticism of programmes and no encouragement to selective viewing of those of merit."[4]

An instrument in the hands of British school teachers is the quality and standards of the programmes provided for the classroom by the BBC. Whether for the furtherance of the cultivation of taste and discrimination, throughout a lifetime of adult viewing, this instrument is sufficient, I personally doubt. But school television can do a great deal, fulfilling not only a primary pedagogic purpose, but perhaps helping to develop more generally a sense of values. There must, however, come a raising of standards. In Britain as in the U.S.A. the proposition put forward by Harold R. W. Benjamin in his Frank Lee Wright Memorial Lecture must be taken seriously—that the nature of a society is determined by its adults and not by its children. There is need to work towards taste and discrimination in the adult as in the child and thus to break what may otherwise become a vicious circle, in which the disruptive influence of television winning out over its integrative qualities, could work disaster through one generation to the next. The whole problem is one aspect of the fight in which we are engaged to bring man's inventiveness to serve his civilisation.

[4] The Bulletin of the Nottingham University Institute of Education, No. 28, January, 1958.

Land's End

Helen G. Jefferson

Far down from moors which form a tapestry
Where green of leaves, the purple of the heather,
And gold of gorse are interlaced together
Sheer granite cliffs descend to meet the sea.
The storm-gnawed stones repel waves stubbornly,
Endure the gales of North Atlantic weather,
Even in calm the swell curls like a feather
As white as breast of any gull can be.

England begins and ends where wet with spray
The jutting rocks which rise above the foam
Are reaching westward like an outstretched hand.
Though home is a sea and continent away,
This is not alien soil, this too is home,
Here I have roots, this is my mother's land.

Educating Teachers: Discipline or Profession?

Joseph Justman

I

One wishes he could approach this subject without stirring up a sense of crisis. Too much in American education has lately been received in a critical mood and with a sense of "emergency." It does the patient no good if the doctor is nervous, and the problems of the school are being treated by nervous doctors. Moreover these have developed a lamentable tendency to quarrel among themselves. Liberal-arts doctors are at odds with their colleagues, the "professional" educators: the latter, not unused to controversy, react with equal asperity. That the American school continues to survive such treatment must testify to its hardy constitution.

The unexpected arrival of the sputniks has provoked another educational crisis. The cry has already gone out for more scientists and mathematicians, though what will be done with them is not clear. Unfriendly critics clamor for a re-assessment of the school, to the accompaniment of a chorus of "I-told-you-so's." More objective, fair-minded citizens are expressing great concern and even the government, after years of nonchalant indifference, has leaped into action. A full-dress review of American education could have the effect of promoting salutary changes provided it were conducted coolly and objectively, in the spirit of the democratic tradition and not of a revived Platonic ideal nor of the current Russian ideal whatever that may be. That the review will be so conducted is, at the moment, more a prayer than a certainty.

In the conceited hope of warding off still another crisis, I take my turn in calling attention to unresolved problems in the education of teachers. Inevitably weaknesses in the school will be linked (and already have been) with weaknesses in preparing teachers. Public impatience with the one may spill over against the other, and soon another "emergency" may be on the way. Besides, it is our obligation as a profession to undertake what for years we have consistently neglected—put to the test some of our favorite beliefs and superstitions, and in place of unsupported theories try to secure a real working knowledge of how teachers should be prepared. To say that an open-ended inquiry into the subject is overdue is a notable understatement.

Critics of Education with a capital E take it as an error to view teaching as a craft for which one needs to prepare through extended professional and technical study. They profess to regard teaching as an inspired art, sparked by native talent, nurtured by scholarship, and ripened by experience. A string of Education courses woven into the fabric of four years' liberal-arts study is to them a noxious thing, detracting from the sub-

stance and quality of the end product. The most they are willing to concede to prior professional preparation is a short, intensive apprenticeship under an able teacher, coupled with seminars looking to "the development of insights into child psychology, the learning process, the meaning and purpose of education," this to take place *after* four years of undisturbed academic study.

In support of their view they argue that good teachers came before Education courses, and that there are still many teachers who develop famously without such courses; that Education courses, so far as they can see, are weak anyway; and that, even more unforgivably, the people who begot the Education courses are themselves responsible for the afflictions of the American school —a shallow curriculum, soft teaching, and little learning. Brooding over their failure so far to assert greater influence over education and teacher education, they have become increasingly uninhibited in expressing their displeasure with the educationists.

This position, though strongly manned (these people can be very articulate), is not unassailable. Leaving aside at this time the predicament of the American school—which came first, the problems of the school or the educationists?—and going directly to teacher education, the case seems to rest on credibility of empirical evidence and, more basically, on bias. As is usual in empirical thinking, the question is "Which evidence do you choose to believe?" Of course there are gifted teachers who owe nothing to previous professional training; obversely some hoarders of Education "credits" are little more than uninspired laborers. There are also teachers without preparatory training who are duds, and others (perhaps the greater number) whose passable competence could have been enhanced by a more thorough knowledge of their profession. Colleges, whose teachers as a rule are emancipated from the drudgery of Education courses, offer a fair proving ground for the idea that teachers may be obtained on the basis of scholarship and "promise" alone, without special preparation. Without any cavalier intent, and with more than willing admission that colleges can and do produce good teachers, one hopes to be pardoned for concluding that the evidence as a whole is not convincing.

The fact that existing Education courses may not stand up to inspection, while regrettable, is of subordinate importance. They are means to an end, and as such should be altered or discarded if they do not serve their purpose efficiently, and better means should be developed. The proposition, as Edmund Burke might have said, is how to secure good teachers, not how to by-pass Education courses. If we resolve that nothing less than good teaching shall be acceptable and proceed to ascertain of what good teaching is constituted, we can then develop serviceable instruments for finding good teachers or producing them or both. There is no commitment to existing Education courses, nor for that matter to any Education courses.

While the logic of the critics of professional education is not impregnable,

the underlying bias is more difficult to deal with. Anxiety over what they hold to be the mistakes of the American school (attributed to educationist influence) sometimes impels them to lengths which are themselves hard to justify. Scholars themselves, and scornful of crude empiricism where experimental or scholarly inquiry can prevail, they seem content to accept empirical superstitions on how good teachers are obtainable, and appear less than amenable to open-minded research. They will not experiment with any forms of teacher preparation except those which, removed from the context of formative education, reduce professional training to its barest limits, preferring to send young teachers into the schools little exposed to the deeper problems of education which have engaged the best humanistic minds since Plato. The largest educational foundation in the world shows its displeasure with "spoon-feeding" and other effects of educationism in the schools by financing one-sided teacher-education projects all characterized by the intent to reduce professional preparation through Education courses,[1] although in other respects the foundation has done excellent work in bringing able people into teaching, publicizing problems of teachers, and, for that matter, fostering new procedures in teacher preparation.

Occasionally the excess of feeling leads into blind alleys from which there is no emergence. Education courses are often indiscriminately condemned, with or without prior inspection. Education colleagues are treated in professional print or discussion with less than the restraint associated with gentle scholarship. The sponsors of a recent conference on the history of education saw fit not to invite any teachers of Education, only teachers of history. The chancellor of a large mid-western university recently allowed himself to be quoted to the effect that courses in educational philosophy should be staffed by teachers of philosophy (hardly an original thought by now); only through his or the reporter's negligence somebody forgot to add "who also know something of children and their education." Unless one is mistaken, such actions have the earmarks of pique.

Plain talk such as this is not likely to charm and convert the unfriendly. But there is nothing to convert to—except willingness to take up a common burden and carry it more easily together. The fact is that, while there are many ideas on how to educate teachers, there is little secure knowledge. In order to arrive at some truths we need the partnership—the leadership, if you will—of men who see education from the liberal viewpoint, are versed in the scholarship of their fields, and already thoroughly involved —whether they admit it or not—in the making of teachers. Such partnership,

[1] The Ford Foundation's Fund for the Advancement of Education states this plainly. "There is a useful range of method in these plans, but typically, they depend, in lieu of conventional courses in professional education, on a combination of substantial practical or interneship experience in neighboring public schools with a comprehensive seminar bringing theory regarding child development and psychology, educational philosophy, and methods of teaching to bear upon practical problems encountered by students during their interneship experiences in the schools." *Report for 1954-1956*, p. 29.

however, cannot be fruitfully maintained without, if not a basis of mutual respect, at least a willingness open-mindedly to pursue the problem together wherever it leads.

II

To the outsider it may appear that professional educators are united in belief how best to prepare teachers. Actually there is a deep cleavage within the group, and smaller fissures going off in several directions. As among the liberal-arts people, there are some with fixed minds, who *know* that they know. In greater number, however, are those with honest misgivings about prevailing practices, who sense the deficiencies and grope for something better, uncertain how to proceed. In the meantime they go along with one program or another, preferring this to the bitter alternative extended by uncompromising liberal-arts colleagues.

In the main, institutions bound to ivy-league traditions and those of more conservative tendency, if they countenance Education courses at all, prefer those which are formed in the pattern of liberal-arts disciplines. There are the usual offerings in the history and philosophy of education (separate or combined), educational psychology (general and specialized), methods of teaching (on several levels and in different subjects), and complementary practice teaching or school interneship. The courses are self-contained, tightly and logically organized, and conducted with more than a passing scruple to "good form" in college teaching. There are extensive book lists, heavy assignments, research and term papers, searching examinations, and occasionally rigorous grading. Although, except for some extension, the program pattern has not changed much over the years, the courses themselves have. They have been filled in and enriched with the cultural content upon which professional knowledge rests. A course in the history of education no longer dwells on the bare bones of pedagogy, as it might have a generation ago: it relates currents of educational thought and practice to the surrounding cultural milieu. Educational psychology draws on basic research and new developments in the rapidly expanding field of behavioral science. The philosophy of education treats of fundamental philosophic problems, and not only from the viewpoint of John Dewey. A professor of philosophy might well feel at home in such a course, as the university chancellor maintains. Contrary to slighting reports, many Education teachers conducting these courses are competent scholars in their parent disciplines.

Breaking away from a form of teacher education which they regard as too academic, indirect, or simply outmoded, other institutions—including many which feature teacher education—have reorganized their offerings, usually with resulting amplification. Straightforward instruction in the history and philosophy of education has given way to mixed-content courses centering on the social backgrounds of education, the place of the school in the social order, and the problems derived therefrom.

A wide range in course titles may include Introduction to Education, Orientation to Teaching, Foundations of Education, Problems in Education, School and Society, Culture and Education, and the like. Offerings in educational psychology have been reconstituted from a straight subject-matter sequence (pursuing such topics as the physiological basis of human behavior, intelligence, motivation, learning, etc.) to one which follows the growth and development of the child from birth to maturity, gathering and applying whatever psychological knowledge may be pertinent to each period of growth. What may be called tools of psychological study—statistics, intelligence and achievement testing—are taught in the context in which they function. Courses in methods of teaching have been brought closer to or combined with field practice, and, at least on the elementary level, methodological study is related to a school program of "integrated experiences" rather than to separate subjects. As a rule, practice teaching has been systematized and extended.

Underlying these alterations in course structure has been a change in basic thinking. This form of teacher education conceives its task more directly and frankly a matter of *training*. Faced with the alternatives of providing depth of professional background or greater immediate on-the-job competency, it chooses the latter. It views the student's professional entry into the classroom as the goal and climax of training, and accordingly shapes all prior activity to this end. Its conception of the teaching function is not narrowly confined to pedagogical skills: it pictures the teacher as a broadly informed and active person, concerned in all areas where life impinges upon the school.

In such a program of teacher education, courses are less apt to be organized in the conventional manner of college disciplines. They may be loosely compounded of varied types of subject matter, joined to each other less by logical connection than by relevancy to a common purpose. Prescription of course content may be limited to broad outline, allowing for greater improvisation within. In progression of study, system may be sacrificed to opportunity. Common proprieties of college teaching are not always observed and sometimes studiously avoided. Thus, whenever possible, direct experience in a learning situation is preferred to the short-cuts of book-work, although the latter is not neglected. The lecture method of instruction is less favored than personalized procedures which bring the teacher into contact with the students, and the students with their learning problem—small-group work, laboratory, work shop, field study. Accomplishment is assessed less by recitation and written tests and more by growth in total proficiency, however it may be manifested. The teacher's concern may reach out to include students' needs not properly within the subject-matter compass—problems of health, speech, personality, and the like. These differences, by no means accidental or unpremeditated, sometimes make the courses difficult for orthodox-minded teachers to accept.

Caught between two opposing doctrines (and numerous lesser variations), teacher-accrediting agencies in state and city school systems have walked a tight rope. Retaining the more conventional categories of prescription (so many "semester hours" in history and philosophy of education, etc.), they are discreetly broad-minded in matching new courses to older labels, stretching a point here and there. In some cases, by agreement with an accredited institution, they will certify its students upon completion of their course of study, instead of attempting course by course to equate the inequitable. Under the circumstances they have shown a great deal of practical wisdom in the performance of a difficult duty.

In the absence of convincing proof such as could be furnished only by assessment of the "end product" on a large and systematic scale, it is difficult to judge the relative merits of these opposing forms of teacher education. What adds to the difficulty is that they are designed to different dimensions, one probing for depth, the other spreading over a wide landscape. One can only "interpret" his own experience and observation in both types of program, offering a margin of discount for both the narrow plank of vision and the residue of personal feeling which cannot be suppressed.

The more traditional program can afford both teacher and students a good educational exercise in the best liberal sense. Only the ignorant would seek to belittle the worth of educational history and philosophy or of educational psychology in sound general education. The courses have an abundance of intellectual substance which teachers like to teach, and students to learn. Each course is teachable on several levels: the better the students, the more elevated can be the course, the greater the challenge and satisfaction to the learners. I have sat absorbed in classes (I am not referring to my own) listening to a searching analysis of Giovanni Gentile's philosophy or to argumentation on moot points of psychological doctrine. Even a "theoretical" course in methods of teaching, detached from all but token field experience, can generate exciting insight into teaching as an art, how the mind of man labors to meet the mind of a child. Long ago I was a student in such a course, and shall forever reject the pusillanimous contention that theory *cannot* be separated from practice.

How well such a program serves the workaday needs of the teacher is the real poser; or, rather, how much of what is essential for a teacher to know, such a program fails to treat. To what extent does the history of education actually illuminate the problems of the modern school? Does a course in the philosophy of education, for all its powerful thinking, help to direct the teacher in the maze of a large city high school, with its several thousand students seemingly going in all directions? Does an academic course in psychological abstractions such as intelligence and learning really translate itself into better understanding of children? These questions bother me, and my answers to them are not reassuring. It is unfair to point such

inquiries at specific courses, but my impression is that the program *in toto* leaves large and dangerous gaps in preparation which are never closed. It fails to show the trees for the forest. Its substance seems too remote from the daily tasks of the classroom to assure ready transfer and application. No program of teacher education can meet all contingencies, and time was when *this* program, with its intellectual focus, served. But teaching has become considerably more complicated, and the need for explicit, particularized preparation has increased. Anyone doubting this should spend a few days revisiting a school.

The training type of teacher education is so constituted as to correct some of these attributed shortcomings. It teaches—almost too well—the things a teacher has to know in the pursuit of his job. The prospective teacher learns much about the workings of the school, its constituency of children, the homes and the community which produce them. He becomes familiar with typical school activities and school routine, trained in the use of implements of learning other than exclusively books and in taking advantage of unexpected or unusual teaching opportunities. In short, he is better prepared to enter a classroom and to teach. Moreover (and this is a dangerous generalization I am willing to risk), he probably has a broader and truer sense of his mission. Less disturbed by divided loyalty to children and to demands of scholarship, he is more willing to take children as they come, without reference to IQ, and to accept responsibility for educating them in ways not necessarily limited to academic. An observation I have made of many discipline-oriented teachers is that, for want of training or inclination, they tend to shy away from educational responsibilities not clearly in the realm of teaching their subjects, and that their attitude toward children is excessively influenced by the extent of the latter's intelligence. Whatever else may be said of the newer type of teacher training, it does instill a more balanced regard for children and a broader conception of the role of the teacher.

In its turn it also has presumptive weaknesses. It strains to fortify the prospective teacher for the beginning of professional life, thus skimping on preparation for the longer pull. The young teacher should have no trouble in attaining a measure of journeyman competence, but what then? Progress from this point presumes not only the will to be creative but also the independent use of a considerable intellectual equipment in the field of the profession—a deep well of knowledge to draw from, insights by which to be guided, tools of study and research to employ skilfully. In the intellectual resources of his profession the young teacher seems underequipped. Pressure to prepare him for the many practical tasks of employment leaves little time for gathering nonutilitarian knowledge, for exploration in the outer reaches. Courses organized on a functional basis do not take kindly to amassing and systematizing a fund of scholarship for later use. Too much of the "how-to-do-it" approach, offering

ready solutions in tidy packages, even serves to distort perspective. Teaching is made to seem easier than it is, an occupation devoid of striving and occasional failure. Preoccupation with *activities* (building units of study, arts and crafts handwork, planning trips, choosing "pupil committees") fosters a false sense of security in the moderately able trainee, and leaves the intellectual one unsatisfied. Yet, to attempt to orient instruction to the latter is to risk subverting the principles of the program.

Such a program almost requires a graduate in-service year of study to rescue it from the commonplace. Were it possible in every case, a fifth year of training would be helpful. It remains questionable, however, whether an intellectual underpinning can properly be joined to a structure already so slanted and whether the precious graduate year should preferably be devoted to pursuit of additional professional training or to cultural self-improvement. There is also the matter of psychological timing. Students tend to become surfeited with courses, and a fifth year of study is apt to show diminishing returns. Young teachers in the first flush of teaching experience, with small practical problems crowding their attention, become impatient with additional training in "theory."

III

Judged from the viewpoint of personal experience, the two main forms of teacher education appear to have their merits and their limitations. More eclectic variations of these two prototypes may succeed in increasing their measure of strength, and for that matter even the more radical variations sponsored by critics of professional education may achieve good results. It is possible, though most unlikely,[2] that good preparation of high school teachers may involve strong liberal education with little, if any, professional training at all. The pity is that we are not in position to know, only to surmise and to argue.

It is difficult to weigh objectively the relative merits of opposing forms of teacher education. They aim at different targets and move in different directions. It would be better to assume that a variety of forms is feasible and desirable, provided each knew more precisely what it was getting at, and could be assessed in terms of its own justifiable ends. To be in such a position, we need considerably greater and more assured knowledge of what good teachers are and what they do—all manner and variety of good teachers.

An affliction of recent American education has been its intolerant factionalism. Too many of us—individually or in our sacred group—tend to think that we have an exclusive corner on educational truth. Much discussion proceeds as if there were only one kind of "good" education, "good" student, "good" teacher. Yet we know that this tendency flies in the face of reason, experience, and the ascertained facts of human nature. A theory of education could con-

[2] In a year's study (1956-1957) of education in Italy, I found that secondary-school teachers' almost total lack of professional preparation was a subject of widespread criticism.

ceivably be monopolistic (the Lord forbid!) but education can never be. Being various sorts of people, teachers teach variously, and students learn variously. Different kinds of good teachers are inevitable, and possibly also different forms of teacher education working under different theories to produce desirable ends. But knowing instead of speculating about these ends will help us to devise more efficient teacher education programs. The prospect of greater diversity in teacher education should not deter us; teacher-certifying agencies may demur but they will accommodate.

We need a factual study (or a coordinated group of studies) of good teaching on a representative and convincingly large scale, as free as possible from ideological basis. The purpose should be to ascertain the composition of the good teacher, not by "opinion questionnaires" addressed to supervisors, children, parents, or college professors, but by finding good teachers and studying *them*, regardless of the doctrine in which they may be cloaked. The study should draw from many types of schools, public and private, on the several levels, and with a wide range of pupil constituencies. Even if not "exhaustively" conducted or ever fully completed, even if we do not succeed in establishing clearly those characteristics of good teachers which are involved in doctrinal dispute, such a study could afford valuable findings on which to build sounder practice in teacher recruitment, training, and selection.

We may find, for example, that on some school or grade levels or in some subjects, men rather than women (or vice versa) make the better teachers, and the findings may contravene some of our popular notions. The intelligence range of teachers related to caliber of children, type of school, or subject (concerning which we know virtually nothing) may turn out an important factor in teaching effectiveness, again in an unexpected way. Such non-professional acquisitions as adeptness in sports and games, musical talent, dramatic ability, skill in mimicry, cartooning, or folk dancing may contribute more (or less) than we assume. A teacher's prior experience in business, profession, the entertainment world, or the armed forces may have greater bearing on his success than the latest antiseptic devices for "stimulating children's growth." We may have over-refined "methods of teaching" or, in some cases, not refined them enough. We may be over-sensitizing teachers to children's personal "needs" and problems of adjustment or neglecting to sensitize them sufficiently. Such a study will have the advantage of discovering what good teachers have themselves learned from their experience, over and above formal preparation. Some of the findings may have the effect of reducing the utility of teacher training proper, pointing—as they may—to better practice in teacher recruitment and selection; others will supply a clearer focus for teacher education. If we are interested in every aspect of obtaining better teachers for the schools, all this is grist for our mill.

The United States Office of Education has lately commissioned a research

staff at Brooklyn College to conduct a study of "characteristics of teacher behavior and competency" in the four middle grades (3-6) of the elementary school. It is a good start, as the study promises to minimize ideological considerations and to identify "those teacher abilities, traits and qualities which make for a high level of effectiveness for different purposes, persons, and situations."[3] We need more studies of this kind, involving much greater sampling, if possible coordinated so that the results can be pooled, systematized, and interpreted for wide application. It is not a work of decades but of years, and the findings can be utilized as they are made available. It needs leadership, sound planning, and money. The leadership and planning will be there if, on a national basis, a group of educators is gathered representing many eduational interests but subordinating personal conviction to open-minded research. The money can be there, too, if government, private foundations, and public-spirited business are willing to make a worthwhile investment.

[3] I am quoting from the plan of the study.

I am my student's Bible . . .
He reads me most of all.
Today he reads me in my class . . .
Tomorrow in the hall.
He may be prodigy, or slow . . .
Or only average be.
He may not read the Book of Books,
But he is reading me.

—William A. Ward

The Early Admission Experiment of the Fund for the Advancement of Education

ALLAN LARSON

I

THERE is currently an upsurge of concern throughout the country over the future supply of specialized talent for the nation. Our rapid economic growth, coupled with new opportunities and grave perils on the international scene, have increased our awareness of how heavily future progress and security will depend upon competent and creative individuals. The issue has been dramatized, of course, by the shortage of scientists and engineers, but it is becoming increasingly obvious that this deficiency is merely part of a general lack of specialized talent affecting virtually every aspect of our society. This over-all shortage is not the result of a decline in supply, but rather from a tremendous growth in demand. Our dynamic society will continue to need not only engineers and nuclear physicists but more teachers and doctors, economists and biologists, ministers and lawyers as well.

Despite the great strides made by American education over the last fifty years, we are still far short of the goal of enabling and encouraging every young person to develop his full potential. The resulting waste of rich human resources is enormous and is deeply rooted in our educational system. We are presently wasting a vast amount of potential talent, and we must attack the long-run problems of talent supply primarily through our schools and colleges. The aim, it is important to remember, is to attack the problem, not the schools and colleges. The central issue is not whether these institutions are doing as good a job as they used to do toward developing the abilities of our youth, for there is good reason to believe that on the whole they are doing a better job. The real question is whether they are doing enough better and the blunt answer is that they are not. They are not keeping pace with our mounting needs and they will have to make many changes in their present methods of operation. Of particular concern are educational procedures which will enable and encourage each individual student to pursue his education with maximum efficiency and effectiveness.

The Program for Early Admission to College represents one possible approach to making our schools and colleges more flexible and more effective in developing the diversified abilities of young people. In the fall of 1951, eleven American colleges and universities opened their doors to 420 freshmen who differed from the average college freshman in two striking respects: they were roughly

two years younger and only a few of them had finished high school. These "Early Admission" students were the pioneers in an experiment financed by The Fund for the Advancement of Education to determine the feasibility of allowing carefully selected students of high academic promise to complete their schooling at their own best pace. The experiment was one of a combination of five projects supported by the Fund as part of a broad-scale attack on two closely related weaknesses in the American educational system which tend to impair quality and impose waste. The first is a lack of sufficient flexibility to accommodate the wide differences in ability, interests, and maturity that prevail among young people of similar age. The second is a lack of continuity in the various stages of the educational process, which too often leaves gaps in a student's education or forces him to repeat work that he has already done well. These weaknesses affect the education of all students to some extent, but they bear with particular force upon the able student. Many able students, marking time in an unchallenging high school environment, lose interest in education and do not go on to college.

The Early Admission Program originated in 1951 as a pre-induction experiment by four universities—Chicago, Columbia, Wisconsin, and Yale—who at that time were concerned with the problems raised for education by the military manpower demands arising out of the conflict in Korea. In the spring of 1951, the four universities requested support for an experiment designed to allow able young men to complete two years of general education in college before being called up for military service. This was to be accomplished by admitting them to college before they had completed high school. The grant was made and the program was expanded to include seven other colleges and universities—Fisk, Goucher, Lafayette, Louisville, Oberlin, Shimer, and Utah. A twelfth participant, Morehouse, joined the program in 1952. This expansion, and the subsequent liberalization of the military draft regulations to permit college students with good academic grades to complete college before being drafted, soon broadened the cluster of projects into a large-scale experiment in early admission to college.

The "laboratory" in which the Early Admission experiment has been conducted consists of a diverse group of institutions of higher learning. They range in size from a large university such as Wisconsin (registration: 17,800), where the scholars represented only a tiny fraction of each entering class, down to the small college of Shimer, where the student body numbers less than 150 and the scholars were almost as numerous as their classmates. Three of the institutions—Chicago, Louisville, and Shimer—had done considerable previous experimenting with the admission of young students who had not finished high school. For the remaining nine institutions, a policy of early admission was new. The diversity among the participating institutions has not simplified the task of over-all interpretation of results, but it has meant that the experiment has

been conducted under conditions fairly representative of American higher education as a whole.

II

The students who were awarded the Fund scholarships under the program were not selected by the Fund itself, but by the individual colleges and universities. In general, each institution employed its own usual procedures in admitting scholars, but some used special recruiting efforts and screened candidates for Early Admission more carefully than candidates for regular admission. The scholars were selected above all for their high academic promise. Except in the case of Shimer, no applicant was admitted unless his scholastic aptitude test score was higher than the customary minimum for entering students. Shimer tried an experimental procedure of admitting scholars with a wide range of aptitudes, including some of average and below-average capacity. However, the choice of scholars was not guided solely by considerations of high scholastic aptitude. Admissions officers generally attempted a more careful appraisal of the social and emotional maturity of the applicants than is customary with ordinary applicants, in recognition of the fact that not every young high school student of unusual intellectual endowment is ready to handle the greater freedom of college wisely. In cases where the academic promise and emotional maturity of the candidates were considered roughly equal, the choice was influenced by other factors, some quite unrelated to the intent of the program itself but important to the institution. Most of the colleges, for example, sought greater geographical and socio-economic diversity than usually exists among their entering freshmen. Most institutions also favored the candidate of greater financial need, and the public high school student over the private preparatory school student. A few colleges, seeking to avoid selecting scholars who would be "conspicuous oddities" on their campuses, favored candidates who looked older than their age.

The scholars chosen were not "infant prodigies" but merely students who happened to be relatively younger and relatively more promising intellectually than ordinary students. Most of them were sixteen years old or younger, and only a small minority had completed twelve years of schooling before entering college. The majority came from large cities or suburbs, but roughly ten per cent came from small towns and another ten per cent from rural areas. By and large, they were the products of public schools, and most of them were from middle-income families whose breadwinner was either in business or one of the professions.

Most of the colleges and universities participating in the program have made it a point to give scholars the same academic treatment as other entering freshmen. The heavy emphasis in the freshman and sophomore years has been on a liberal or general education. In most institutions the scholars, along with other entering students, have been allowed relatively little choice as to curriculum in the first two years. When

some institutions did arrange special programs for the scholars, many of the latter voiced strong protests against being set apart from other students. Fisk was the only institution to segregate its scholars completely in terms of academic arrangements, but this policy too has been revised. In the non-academic aspects of college life, the majority of the colleges treated the scholars exactly like other students. There were some colleges, however, where special social arrangements were made for the scholars during the first year of the experiment. Some institutions required scholars to room together and social activities were strictly supervised. This solicitude, the faculties soon recognized, was unwise. The situation was well illustrated at one college where an all-scholar dormitory was nicknamed "The Nursery."

Because the scholars as a whole were considerably above average in scholastic aptitude, it was important to compare their progress in college not only with that of their classmates in general but also with that of a selected number of "matching" students of comparable aptitude. These comparison students were matched with the scholars on the basis of aptitude scores. Most of the comparison students were aware of their role in the experiment, and some displayed a lively interest in it. During their first year of college, the scholars and the comparison students were asked to list fields of study in which they felt handicapped by faulty or insufficient preparation in secondary school. A substantial portion of both groups of scholars reported no handicaps at all, despite the fact that most of them had not finished high school. On the other hand, a surprising portion of the comparison students reported handicaps in one or more fields, despite the fact that they had entered college with four years of high school preparation. This is striking evidence of the unevenness of secondary school preparation and also of the wide range in ability among high school students. Mathematics and English Composition were the fields most frequently mentioned by scholars and comparison students alike in reporting handicaps due to faulty instruction or insufficient preparation at the secondary level. According to the judgment of the colleges, most of the scholars and comparison students had overcome their handicaps by the end of the sophomore year. The initial deficiencies may well have turned out to be an added stimulus rather than a handicap to many of the scholars, in that they found an intellectual challenge and a resulting satisfaction that they had not been able to obtain in high school.

III

One of the basic questions raised by the Early Admission Program was: How would the scholars do academically, in view of their comparative youth and their less than normal high school preparation? A preliminary answer to this question had been given in the summer of 1953 when a report on the freshman year of performance of the first group of scholars was published. Briefly summarized, this report showed that the 1951 scholars had outperformed not only their classmates, but also their comparison students. Now that four scholar groups have entered the program and two have

graduated, the evidence confirms and strengthens the preliminary findings. It should come as no surprise that the scholars as a group outperformed their classes as a whole by a wide margin. One might, however, expect the comparison students to do better than the scholars in view of their advantage in age and high school preparation. This has not been the case. Year after year, a higher proportion of scholars than comparison students ranked in the top tenth, fifth, and third of their classes. The initial superiority of the 1951 scholars over their class as a whole and over their comparison students continued throughout their four years of college. The size of this "edge" fluctuated slightly from year to year, but it remained clear-cut and consistent.

Grade point averages are a reasonably reliable yardstick for comparing the academic performance of individual students or groups of students within a college or university, but they are not very reliable in measuring the comparative performance of students in several institutions, because each institution may be using a different yardstick. In the spring of 1954, however, the Educational Testing Service of Princeton, New Jersey, made available a new battery of tests that provided a much broader basis for measuring the comparative performance of the scholars and comparison students at the twelve participating colleges and universities. These new tests were the Area Tests of the Graduate Record Examinations, which had been in the process of development for several years. These tests, covering the humanities, natural sciences, and social sciences, were aimed far beyond the details of specific courses and were intended to measure the student's grasp of basic concepts in the liberal arts and his ability to apply them.

From the standpoint of the Early Admission experiment, these new tests offered two distinct advantages. On the one hand, they offered a much stiffer challenge than existing standardized tests (the scholars and comparisons had been bumping their heads on the ceilings of these tests), and on the other, they made it possible not only to measure the performance of scholars and comparison students at all of the participating institutions with a uniform criterion, but also to compare the performance of both groups with that of students in other American colleges, as the tests were available to colleges and universities throughout the country. The results of these tests proved most interesting. Each group of scholars outperformed its comparison group, both in terms of mean scaled scores and also in terms of the proportion scoring above five hundred, which was the estimated mean (average score) on each test for a "standardized" group of college seniors. The scholars' margin of superiority over the comparisons was clear and consistent, just as it was in the case of their grade point averages. In each of the three areas of the tests, all four groups of scholars had higher mean scores than their comparison students, and a larger proportion of the scholars scored above five hundred. As might be anticipated, the scholars and comparisons scored higher on the area tests than other American college students. What came

as a surprise, however, was that all three of the scholar and comparison groups who took the tests as sophomores surpassed the test norms set by college seniors who took the tests—and by a wide margin. Perhaps the most amazing comparison was the one in which the scores of the scholars and comparisons who took the tests as sophomores were compared to the scores of first year graduate students at the respective universities. The scholars and comparisons once again came out on top, the scholars by a wider margin than the comparisons.

These results offer striking evidence of the wide diversity in performance among American college students. They also raise some basic and provocative questions. For example, even after making allowance for the fact that the scholars were exceptionally able students the fact remains that the scholars—after a less than normal high school preparation and only two years of college—demonstrated that they had a better grasp of the basic concepts of a liberal education than a large body of American college students who were seniors and first year graduate students. What are the implications of this for the conventional "lock step" system where a student must spend sixteen years in school and college in order to earn a bachelor's degree? Should such students receive their degree as soon as they demonstrate sufficient competence to earn it, and then be allowed to get on with their graduate or professional work? (This actually did happen in some instances, notably Chicago and Wisconsin. Two of the 1951 scholars at Wisconsin, for example, compressed high school and college into five years and graduated with Phi Beta Kappa honors.) There are no simple answers to the questions posed by the scholars' impressive performance on the Area Tests, but the comparative results suggest that such questions require serious examination—at the college level, and at the secondary school level as well. In any event, the superior academic performance of the scholars demonstrates that the ability to do well in college is not solely a function of chronological age or twelve years of previous preparation.

IV

The task of appraising social and emotional adjustment is a great deal more difficult than that of judging academic performance. The central question is not whether these younger students encountered adjustment problems, for all students do. Rather, it is whether the problems they encountered were significantly different or more severe than those they might have encountered had they entered college at the conventional age, and, if so, whether they were successful in meeting them. It seems obvious that no single type of evidence by itself provides an adequate basis for conclusions. Moreover, adjustment to college is not a quantitative thing to be measured in terms of the participation in extra-curricular activities and social clubs, though reports from the colleges indicate that the scholars did not achieve their outstanding academic records at the expense of having to forego extra-class activities.

An appraisal of the social and emotional adjustment of the Early Admission students must start from this point

of departure. With this in mind, the Fund and the participating colleges arranged to have several types of evidence gathered and analyzed for their report. They obtained the seasoned opinion of experienced members of the college staff who had an opportunity to observe the scholars in various situations over a period of time. Activities involving group participation and opportunities for leadership were evaluated. Another type of evidence was obtained from essays written by the scholars and comparison students just before graduation. Finally, there are the findings and conclusions of a team of trained psychiatrists who made an independent appraisal of the scholars' social and emotional adjustment and a special analysis of the cases of scholars who for one reason or another dropped out of their original college before graduation.

Reports from the colleges and universities covering the complete four-year experience of the scholars indicate a high degree of sharing in the extra-curricular life of the campus. Yale was the only institution to report that its scholars had been less active than their classmates, but it noted that the difference was slight. The Yale adjustment problem may have been partly due to the fact that Yale selected a number of scholars from rural backgrounds, as a matter of policy. Columbia made a similar comment about extra difficulties encountered by rural students on its large urban campus. While some institutions reported that the scholars' youth and early admission may have accentuated their initial emotional adjustment difficulties, they reported that in most cases the problems were subsequently overcome. In the few cases where social or emotional maladjustments did develop, early admission was not considered the determining factor.

Did the Early Admission Program produce an unusually high proportion of "immature" students? The psychiatrists consider that it did not. They discovered that five per cent of the 1951 scholars dropped out of college because of psychiatric disorders not related to early admission. Moreover, they found that the incidence of psychiatric difficulties was not greater among the scholars than among regular students. None of the major causes of scholar withdrawals involved lack of intellectual capacity. Almost invariably the main reasons revolved around a family situation, a cultural consideration, or a personal attitude that impeded normal development. However, a very small minority of the 1951 scholars did leave college for the basic reason of lack of intellectual potential. Half of these cases occurred at Shimer, which was the only college to admit scholars of average or below-average academic promise. Failures of this nature represent the serious fatalities of the program. These students might well have succeeded in college had they completed secondary school; coming to college shy one year or two of such schooling placed them in a position which doomed them to failure. Moreover, this group who really wanted a college education were severely traumatized psychologically by their failure. Experience with these students strongly indicates that early admission is applicable only to students with superior intellec-

tual potential. Although the period of the Fund support has ended, eleven of the twelve colleges which have participated in the experiment have incorporated the early admission idea into their regular admissions policy. There is some indication that the early admission idea is gaining wider acceptance. The College Entrance Examination Board reports that 29 of its 169 member colleges had early admission programs. Only six of these were participants in the Fund-supported experiment. It is much too early to report the future of the early admission idea, but the evidence indicates that under the proper circumstances it represents a promising approach to the problem of enabling the very best students to realize their full potential. The risks of entering college early have been the subject of much popular concern, and properly so. But too little thought has been given to the risks run by an able student in an unchallenging environment in not entering college early. The great danger here is that such a student will stagnate in the secondary school and will arrive in college lacking imagination and ambition, these having been "educated" out of him. The harm to him and to society is equally great.

There is danger in the decades ahead, when American colleges and universities become engrossed in the problems resulting from the steeply rising enrollments, that the capabilities and aspirations of the "unusual" student are likely to be neglected. College admissions officers, confronted with the problem of many more applications for admission than there are places to be filled, may well tend to "play it safe" when risks are involved in admitting unconventional students, particularly those who have had a less than normal high school preparation. It will be easy to say, "we'll get them next year anyhow, and another year in high school won't hurt them." But the evidence clearly indicates that the superior student can be hurt by being detained in an intellectual environment he has outgrown. It is cruel and wasteful to force a gifted child to suffer needless years of boredom when he could have the opportunity to encounter some fine minds on a college faculty which might be able to salvage at least part of his potential before the habit of mental laziness completely encrusts him.

The notion that the superior student does not need special attention because he is bright enough to look out for himself is still widely prevalent, but an increasing number of educators and layman have begun to challenge it. Coupled with this has been a critical reexamination of the meaning of educational equality in a democratic society—a questioning as to whether it means equal amounts of education for all or equal opportunity for each individual to develop his talents fully and freely.

There is also a growing awareness that the health and vigor of our society—and indeed its very life—depend on making the most of all the capacities of all of our people. To make the most of these capacities, we must not fail to provide for the fullest possible development of our ablest young people. The Fund for the Advancement of Education believes that the Early Admission experiment has clearly demonstrated its promise as a means toward that end.

Book Reviews

NOTE: Reviews not signed have been written by the editor.

"The Bible tells us that the truth shall make men free.

"We Americans know that if freedom means anything, it means the right to think. And the right to think means the right to read—anything, written anywhere, by any man, at any time.

"Print is our passport to truth. It opens the richest empire man knows—the empire of the human heart and mind.

"Men die; devices fail; success and fame run their course. But within the walls of even the smallest library in our land lie the treasures, the wisdom and the wonder of man's greatest adventures on this earth."

—HERBERT HOOVER
HARRY TRUMAN

UNESCO: PURPOSE, PROGRESS, PROSPECTS by Walter H. C. Laves, and Charles A. Thomson, Indiana University Press, 1957. 469 pp. $7.50.

At long last, we have a comprehensive and authoritative book on the United Nations Educational, Scientific, and Cultural Organization. For over ten years, persons interested in this specialized agency of the United Nations have had to content themselves with scattered pamphlets, official reports, or the sensational accounts of Unesco found in the newspapers. Now the serious reader can turn to this volume for a sympathetic, yet restrained, study of the "purpose, progress, and prospects" of Unesco.

The authors are exceptionally well-qualified to tell the story of this controversial international organization for they not only have been intimately associated on a high level with its activities in Paris, but also have had long experience in governmental affairs in Washington, D.C. Walter Laves is presently Professor of Political Science at Indiana State University, and Charles Thomson has been associated with him at Indiana during the past three years as joint author of this book. The collaboration of these two able and experienced scholars insures the authenticity and the reliability of the book. It is essential reading for the large number of persons interested in international education and is admirably adapted for use as a university text in the emerging field of international cultural relations.

The history of Unesco during the past ten years has been a story of a heroic effort to create an international organization that would mobilize the world-wide forces of education, science, and culture in the interest of peace, security, and human welfare. This heroic effort, with its accompanying successes and failures is brilliantly summarized in some 357 pages of text, written in a style characterized by balance and sobriety, yet frank and revealing if one reads between the lines. Part One deals with the origins of Unesco, the critical decisions that attended its birth, and the general development of its program over a ten-year period. Part Two addresses itself more specifically to the major aspects of Unesco's work in various fields of activity. Part Three examines the question of who makes Unesco's program, discusses with some can-

dor the role of member states in Unesco, and appraises the overall effectiveness of Unesco and its prospects for the future. The body of the text is supplemented by copious bibliographical notes, an appendix giving the Unesco Constitution, and other useful materials, and a well-classified index.

Unesco has been one of the most controversial of international organizations, and from its beginning it has been subjected in the United States to a considered campaign of vilification by certain "patriotic" groups. In this situation, it is a relief to find a book that points up with an even hand the solid achievements, as well as the serious weaknesses, of this important international organization. Far from being a threat to our liberties, Unesco appears to our authors to be, on the contrary, an organization which has often failed to live up to its high potentialities. This failure is attributed in part to administrative defects, in part to the exigencies of the "cold war," and in part to the lack of support by member states. With respect to the latter point, the authors state without reservation that: "During Unesco's first decade, no government gave the kind of support that might have been expected from the enthusiasm manifested at London in 1945." In spite of these limiting circumstances, Unesco has a record of solid achievement that is fully documented in this book.

According to the authors of this valuable book, the achievements of Unesco lie largely in the field of the advancement of knowledge and the promotion of human welfare. Communication among scholars, teachers, and specialists of many kinds in many countries has been encouraged and facilitated by Unesco, and a wider dissemination of the findings of research in the sciences and the humanities has been achieved over a world-wide scale. In the field of human welfare, extensive efforts in adult and fundamental education have been initiated in many countries, and educational measures have been correlated with technical assistance programs to the end that the imbalance which exists between the technologically underdeveloped and developed regions of the world may be, to some extent, reduced. Unesco has emphasized and encouraged democratic values through its cooperation with citizen groups and private organizations. It has provided educational assistance to a number of countries through international arrangements unique in human history. In these, and in many other areas, Unesco has sought to demonstrate that the resources of education, science, and culture can contribute on a realistic basis to peace and security, and foster on a substantial basis the intellectual and moral solidarity of mankind. The present volume provides convincing evidence that Unesco, with all its limitations, has made during its first decade a positive contribution to the building of the world community.

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EDUCATION

CURRICULM PLANNING THROUGH INSERVICE PROGRAMS by Harold Spears. Prentice Hall, Inc. 350 pp. $4.50.

A basic assumption underlying the writing of this book can be found on page 313. " . . . a curriculum is about 90 per cent people and 10 per cent plan or structure." Developing his book from this assumption Spears gives the reader the very clear notion that there is much sta[illegible]ctivity in a great many school systems which has for its purpose "curriculum planning." This activity usually takes place in an organized way known as inservice training. Roughly one third of the book (Chapters 1, 2, 12, 13) is devoted to the rationale of the inservice

program. Another third is given to the description of inservice programs conducted in various school systems (Chapters 3 through 7). The remaining chapters (8 through 11) contain samples and descriptions of the participation of people in the inservice programs in various school systems.

The purpose of the book is not to discuss the effectiveness of inservice programs nor of curriculum planning. The criteria for this would lie in improved instruction, improved learning, improved curricula, and, of course, improved teachers. There is little real evidence in the book that any of these have come about as a result of the inservice program.

The book may best be characterized as a handbook on organizing inservice programs for "planning." There is almost no treatment of the evaluation of inservice programs which this reviewer believes is needed. Much time and money are spent on these programs and one might raise the question whether other approaches to curriculum problems might be better. Since there is generally no critical evaluation, there is also no analysis of the results. Spears is not critical of inservice programs, except in a superficial sense. He merely describes the common practice of organizing them.

In the chapters on participation the reader will get the notion that the best programs are those which involve all the staff members and, indeed, others. Maximum and continued participation of the personnel is the goal sought. Spears displays organizational charts showing committees, hierarchies of committees, and it appears that for every curriculum problem the schools resort to organizing a committee. Two chapters on parent conferences contain much that is useful to teachers, principals, and perhaps supervisors. The suggestions on how to conduct parent conferences and what the content of them should be, would be most helpful to younger teachers. How all of this is translated into curriculum or curriculum planning is left largely to the reader's imagination.

The rationale is set in four frames. One treats of the historical development of the conception of public education, the proliferation of the curriculum, and development of education as a State function. The second frame deals with the need for and the development of an organization for curriculum planning and study. In the third frame, the focus is on the beginning teacher and upon orienting her into her community and into the mysteries of a multifield organization to which she is expected to belong and ultimately to contribute. Another frame consists of two notions: sincerity of the teachers and the planners of inservice education; and the limits of the inservice program. The criterion of sincerity is found in the philosophies and objectives of education which most schools have developed largely by inservice training methods, and the statement that these are aligned with the common American ideals. The limits of the program are described as the size and type of organizations; universality of use; application to salary schedules and/or college credit; and the number of the staff involved.

There is no reason to think that Spears has slanted his descriptions. They seem realistic and valid. However, the critical reader will raise many questions about the value and effect of inservice programs for curriculum planning. They are probably valuable devices to be used in the pursuit of other goals. For example, they can be used to continue the professional education of teachers begun in teacher training institutions in the areas of teacher attitudes, human relations, ethical practices, group work, etc. The reader may ask whether or not inservice programs contain a huge amount of busy work for teachers. If so, what purpose does it serve? After a perusal of this book, the reader may wish to question the whole inservice training movement in public education with regard to its objectives, methods of organizing and operation, and finally, results.

ADOLPH UNRUH
Washington University

EDUCATION, CULTURE AND THE SOCIAL ORDER by K. G. Saiyidian, Second Edition, Bombay: Asia Publishing House, 1958. 295 pp. 10.50 rubles, approximately $2.10.

Until recent decades education in India followed the English pattern. In his introduction the author stakes out the area which he will cover.

"In the world of today the social and moral qualities, which are necessary to ensure the good life, are even more important than the intellectual and practical aptitudes."

". . . education is seen to be not a side issue, not a decorative after-thought to the real business of life, but a basic activity without which life cannot fulfill its gracious promise."

Certain basic values need to be stressed, so the author believes, which should not "become obscured or overlaid by considerations of expediency or the pull of narrow loyalties." Teachers must avoid such narrow ideals "so their work is inspired by a noble vision of an education devoted to the creation of a broad-based humanistic culture and a just and rational social order."

As one surveys the contents of the chapters, the topics are those which well might be those in a volume written by an American, e.g. Education for Better Social Order, Education for Understanding, Education and the Cultural Crisis, Culture versus Prejudice, Universities and Intellectual Freedom, Education and the Social Conscience, This New Education, Education for Democracy, The Challenge and the Promise of Science, The Educational Approach to Peace. A final letter to Nehru of late 1947 discusses "The Eve of Freedom and After."

The author is Educational Adviser to the Government of India. Educated in India and England he has held many posts in universities, states and governments.

He sees the release of the creative impulse in individuals and groups as the prime educational problem. He pleads for international understanding for intercultural fellowship, for a spirit of tolerance and a broad vision.

Contrasting the primacy of the individual over "the lonely crowd" the collective mass, the author sees India as having a philosophy of the "good life," teaching sacrifice and tolerance rather than acquisitiveness.

In his chapter "The Educational Approach to Peace" the views of Gandhi are basic. A clear analysis of his views is stated. "The Age of Scarcity," followed by "The Age of Plenty," makes possible for the first time in history an abundant life materially and culturally for all peoples. It is indicated how through the subjects of the curriculum there may be instilled a predilection toward peace.

This is an excellent introduction to a philosophy of education, encompassing government and religion. Educators in other countries, other than India, may learn much from this clear and stimulating exposition.

EVALUATION IN THE BASIC COLLEGE AT MICHIGAN STATE UNIVERSITY. Paul L. Dressel, Editor. Harper and Brothers, 248 pp. $4.00.

The experiment in general education at Michigan State University is conducted through the first two years of college by an administrative unit known as the Basic College. This book presents a series of reports of evaluations of various phases of the Basic College program which was begun in 1944. Individual chapters are contributed by nine members of the staff under the general editorship of Paul Dressel, Director of Evaluative Services for the project. In these chapters the contributers report the innovations begun at Michigan State and the evaluations made of them. These evaluations are grouped in four major areas: (1) the students—who enter, who drop out, who survive, and who graduate; (2) the examinations used; (3) the counseling pro-

gram; and (4) the ultimate effects of the program in terms of some expected learnings.

The reports are distinguished for poise and candor. The writers have taken pains to describe typical or characteristic activities and results. When a social enterprise achieves the size and momentum which characterizes the project at Michigan State, it is by the typical day after day processes that success or the limitations of it are determined. Recognizing this, the authors have been able to report the very considerable achievements without appearing to claim too much, and at the same time they have been able to acknowledge disappointments frankly because, in many of the instances, they have been able to say, "But we are already doing better."

The content of the reports are challenging and informative to people having responsibilities for curriculum construction in higher education. General education is one of the big ideas claiming the attention of college people. The learning materials and processes by which the purposes of general education can be reached are of concern. Thus these reports which say in effect, "Here are facts which we have carefully observed and here are some of the things we think they mean," have significance for educators at the college level.

Some sections of the book may interest college teachers primarily concerned with their own subject matter fields. Thus the discussion of test construction and of evaluating the results of tests may be valuable for people whose chief function is instruction. The section on the selection of topics for themes and speeches and on schemes for evaluating them may present additions to the store of ideas for some English teachers at any level of instruction (although some college English teachers may wonder what happens to these theme and speech topics if or after the fraternities have accumulated a file of "A" performances).

One further idea introduced by Mr. Dressel is carried as part of the unifying theme through later chapters. This is the contribution of the experiment at Michigan State and of this report of it to basic ideas about the whole field of education. Mr. Dressel writes:

> A great deal of time is spent in studying problems or issues for which there is no really good solution. There probably is no final answer for any significant question about education, since education is a social institution. Education will mean different things, therefore, in different times and places. The irresolvability of certain issues, however, is not due so much to the relativity of answers as it is to the breadth of the questions themselves. . . . We are too prone to phrase questions in a way that indicates expectation of an answer in the form of some broad principle or law which has few exceptions. . . .

This plea for perspective in judging both efforts and results can have wide application in the field of education. Actually, the thoughtful and penetrating account of the work at Michigan State is a significant addition to the literature of education by means of which continuing progress is made.

LLOYD E. MCCANN
University of Arizona

PRINCIPLES OF SCHOOL ADMINISTRATION by Paul R. Mort and Donald H. Ross. McGraw-Hill. 438 pp. $6.00.

This presentation departs from the usual delineation of specific duties and acts of the typical school administrator and places emphasis on the larger aspects of the total administrative control. Emphasis is placed on three fundamental premises: 1) the school administrator has responsibility for making the school better serve the achievable purposes of the public. 2) To accomplish this task, the administrator performs his duties with certain "common-sense criteria" used in proper balance. 3) The administrator uses the lessons of experience in performing his duties.

The authors list fourteen criteria which fall into three classifications: 1) The humanitarian group. 2) The prudential group. 3) The tempo group.

In the first group, the following four criteria are presented in detail: 1) Structural democracy. 2) Operational democracy. 3) Justice as a guide to administration. 4) Equality of opportunity as a guide to administration.

The prudential group presents the following seven criteria: 1) Economy. 2) Checks and balances. 3) Liberty and license. 4) Responsibility and authority. 5) Simplicity. 6) Loyalties. 7) Inertia.

In discussing the tempo group, the authors use three criteria: 1) Adaptability. 2) Flexibility. 3) Stability.

In addition to the discussion bearing on the outline as presented, there are four supplements which supply specific suggestions on the various areas of school administration. Supplement A traces the social and individual purposes of provision for public education considering three factors: 1) The importance of psychological research regarding child development and the process of learning, 2) The changes taking place in the socioeconomic structure, and 3) The technology and inventions available for the administrator. Supplement B presents a survey of the literature of research, analysis and functional analysis. Supplement C compiles model local and state codes which control the operations of local school districts. Supplement D proposes certain devices for the critical examination of school systems.

In all phases of school administration, the authors stress the importance of democracy and the sensible consideration of both structural and operational democracy. This includes consideration for administration, teachers, pupils, and the public in matters which are of direct concern to them.

Justice must be considered in terms of the individual concerned. Equality of opportunity does not mean conformity to an accepted pattern but again it means the consideration of individual needs.

Prudence implies the ability to regulate, to control, to exercise caution which has grown out of man's experience. Prudence should be used in making selections rather than in prohibiting; in considering the changing world, not looking too much to the past; and in considering the greater good for society instead of for selfish purposes.

In considering the tempo group, the institution under competent administration must adjust to developing needs of the persons involved. This is the concept of adaptability. Under the principle of flexibility the institution must deal differently with different individuals in achieving its educational purposes. The school must, however, achieve these two things without discarding too quickly the tested and proved achievements of the past. "A school must have these three characteristics if it is to achieve its purposes and at the same time give due regard to all persons immediately and remotely concerned."

The final statement in the discussion is a synthesis of the legal aspects of school control involving the state, the local school authority, the state department of education, in the consideration for school districts both large and small.

This book is one which can be recommended to all those who are interested in and concerned with school administration. It is not a book to be read hurriedly, but one which should be studied carefully.

B. M. HANNA

Baylor University

THE ELEMENTARY SCHOOL TEACHER AT WORK by George C. Kyte, The Dryden Press. 1958. 519 pp. $5.25.

The outline of contents in this book is a familiar one and well it might be. Dr. Kyte reviewed the outlines and required reading lists of ninety college and university instructors who teach the basic course in elementary education at eighty-six institutions in thirty-six states. Thus, the contents follow the course procedures experienced by thousands of elementary candidates, and

the familiarity, therefore, should make it easy for students of elementary education to ease into the contributions of Kyte.

Part One establishes the basic foundations for an American elementary school: philosophy, objectives, community determinants, learning principles, children, and professional personnel. Teachers are challenged about their teaching goals, their attempts to adjust to the changing society and its conflicting demands on schools, and to the latest findings about children's learnings. Teachers with fuzzy thinking about objectives or how to ascertain the democratic role of schools could get a revealing review from the introductory chapters.

Part Two represents a rather complete coverage of the desirable learning outcomes in an elementary school. The several subjects are presented with thoroughness without involving excessive wordiness. Of special value is the chapter organization and coverage for each subject which makes it practical for a beginning teacher to plan his classroom program and for an experienced teacher to evaluate his. Specific guides and sound practice seem to dominate the emphasis.

Parts Three and Four again are academically honest in helping both beginning teachers and experienced teachers with the improvement of actual classroom operation. For experienced teachers it reads like a check list on "how am I doing?" in classroom organization and management. Possibly one of the strongest chapters in the book, especially for beginners, is the one on democratic control and discipline. Rather than starting and stopping with a listing of techniques for the teacher on the maintenance of classroom order, Kyte has attempted to show the relation of discipline to democratic self-directiveness.

Part Four is devoted to teaching as a career, and thereby has somewhat of a recruitment flavor. Yet, it does get at the professional responsibilities of teachers which perhaps cannot be said too often.

This book reads easily and sensibly. Of special value to many readers are the excellent questions and suggested activities at the ends of all chapters. The book is attractive and Dryden Press is to be commended for its use of full-page pictures and colorful covers. In a day when teaching is becoming more difficult than ever, this book is reassuring in its common sense suggestions and challenging in its appeal for teachers to lift themselves to better performances.

LEWIE W. BURNETT
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THE HIGH SCHOOL IN A NEW ERA. Edited by Francis S. Chase and Harold A. Anderson. Chicago: The University of Chicago Press, 1958. 465 pp. $5.75.

This is a highly significant book. On October 28-30, 1957, nearly 1,100 people—two thirds of them educators from secondary and college positions, a third laymen—met at the University of Chicago the challenge of the new era to the American high school. The conference was sponsored by the University of Chicago in collaboration with the National Citizen's Council for Better Schools. Thirty-eight prominent educators and laymen led discussions and are the contributors to this volume. "The suggestions advanced are intended not for uncritical acceptance but as fomenters of a great debate on how the schools, which have served so well in the past, may make themselves equal to the even more exacting demands of the present and the onrushing future."

Perspectives were given by such noted educators and laymen as Henry Steele Commager, James B. Conant, Lawrence A. Kimpton, Laurence G. Derthick, Francis S. Chase, Francis Keppel, I. James Quillen, Ralph W. Tyler, Roy E. Larsen, and Henry Toy, Jr. The scope of the discussions was broad. Seven major aspects characterized the discussions: the high school in the perspectives of history, comparative education, philosophy and current

needs; the educational implications of new conditions arising from science and technology; concepts and criteria for the redirection of American secondary schools; current innovations; the responsibilities of citizens in planning and administering high schools; guidance, school-college relationships, standards and fast and slow learners; and suggestions for mathematics, science and vocational education.

Every institution has its stage of rapid advance, then a period of maintaining its status quo, again followed by a new reexamination and new advance. Sometimes it merely swings back and forth as in the arc of the pendulum. In the United States it was long assumed that "knowledge is power" in and of itself. A more dynamic philosophy arose; essentially pragmatic in essence whatever its nomenclature, which measured education in terms of function in living, social as well as individual in citizenship in social development and attitude going far beyond the mere information test.

Currently a substantial group would retreat to the "good old days" of mental training and discipline. In any development there are the extremists, both progressives and traditional, who recognize an "all or none" single point of view. The great majority of scholars find some validity in both points of view.

As one considers the position taken by the 38 contributors, one quickly concludes that the comprehensive American high school, open to each to pursue the course best adapted to develop his potentialities, is the favored form of organization. However, it cannot be assumed that there is entire satisfaction with its achievement. In the comprehensive school *guidance* becomes a prime function. The question of science and mathematics is of great import. Language teaching in foreign tongue is receiving increased attention. General education is being weighed against specialization. "Training the mind" is set over against preparation in specific skills. A critical eye is turned upon extra-curricular activities. The education of the gifted becomes a supreme problem augmented by world tensions and competitions.

One of the most hopeful signs in the current educational scene is a renewed search for values; another is the emphasis upon *quality* in school work as contrasted with *mediocrity* in performance. In assessing values in secondary education, one comes near to the heart of the whole educational problem.

The profession is indebted to the sponsoring institution and to the participants in the conference for the stimulating and refreshing analyses of our current educational directions on the American scene.

THE PRACTICE OF SCHOOL ADMINISTRATION by Herold C. Hunt and Paul R. Pierce. Houghton Mifflin Company, 1958. 523 pp. $6.00.

Two well known writers in the field of school administration are the authors of this volume designed for the guidance and use of administrators in service as well as for those in professional preparation for such work. The authors' purposes in writing the book are incisively phrased in their own words when they state that it is "the aim of this book to present administration as it (1) focuses on the improvement of instruction, (2) occurs in concrete school situations, (3) makes the administrator an initiator of group activity to improve teaching, and (4) necessitates range and quality in administrative practices."

The authors are certainly well qualified to write such a book since their combined administrative experience totals sixty-five years including such varied positions as rural teacher, high school principal, superintendent in village and town community, city superintendent of large metropolitan system, A.A.S.A. president, academy director, district superintendency in the Philippines, and under-secretary in a department of the President's cabinet. The depth and breadth

of this experience are apparent in the pages of this book.

The twenty-one chapters present a practical treatment of the problems, principles, and procedures related to school administration in all its various aspects including pupil development and pupil personnel, the educational program, the teaching corps, school plant, and educational finance. Although the major part of the text is devoted to consideration of the local school district, separate chapters are included on education at the state and national level. Each chapter is introduced by means of a prefatory statement entitled "Historical Perspective." At the conclusion of each chapter the reader finds a section of problems for further study and discussion. For each chapter the authors provide a bibliography of selected readings relevant to the chapter topic.

This important new volume in the field of school administration is informative, authoritative, and helpfully practical. The treatment of the material is uniformly well done. The text is carefully indexed and adequately documented. In general the style of writing makes a fairly readable text and the format is acceptably conceived.

Modern procedures, recent developments, and current trends are presented throughout the book, and a useful function is served by the emphasis that is given to the "best practices" among these. One of the features of this work lies in the consistency of its underlying philosophy. The writers of this volume have succeeded rather convincingly in their effort to contribute effectively to the literature in the field of school administrative leadership.

C. Francis Alter
Ohio Wesleyan University

Four Philosophies, And Their Practice in Education and Religion, by J. Donald Butler, Revised Edition, Harper & Brothers, 1957. 618 pp. $6.00.

Anyone who has taught comparative philosophies of education knows the bewildering array of issues and schools of thought available. Professor Butler helps to resolve this perplexity with the defensible selection and systematic organization presented in his revised edition of *Four Philosophies*. The book is unusual in that it can be used effectively in Philosophy of Religion courses as well as Philosophy of Education. There is a remarkable economy and efficiency achieved in its compact presentation of the joint issues of these related fields.

The task of condensing these complex issues has been accomplished by an organization around four outstanding schools of philosophy: Naturalism, Idealism, Realism, and Pragmatism. Each school is expounded in terms of these topics: (a) a brief history of the philosophy, (b) a systematic synopsis of principles, (c) its principles in education, and (d) its principles in religion. The writing is concise and relatively readable, despite the fact that beginning students in this area always have trouble with new philosophical terms. Professor Butler's explanations are clear within the context, and he also provides an extensive and much needed glossary of terms to supplement his exposition.

The author's revisions in response to various criticisms and suggestions from teachers and students are substantial and improve the book considerably. Certain enlargements have been made on the introductory chapter to clarify the merits and demerits of the comparative method. A new section entitled "Education as a Social Institution," has been added to the four main chapters on education.

There has been an important addition of a new section which appears in all four philosophies entitled, "Education as a Social Institution." The Chapter on Idealism, which perhaps represents the author's own philosophical preference, has been extended by a new section on the nature of the self within the metaphysics of idealism. Recent concerns with the "self" in educational literature make this a timely addition.

Revisions have been made in the chapters dealing with realism and pragmatism in

education. A virtual rewriting of the chapter on realistic education was necessitated by the emergence of important new works in this area since the first edition. Also Professor Butler has attempted to satisfy the critics of his former chapter on "Pragmatism in Education" by revisions and generous expansions. It is admittedly difficult for an idealist to ever expound such an opposing doctrine as pragmatism in education to the satisfaction of the proponents of pragmatism. Despite this fact, Professor Butler has succeeded in giving a remarkably fair picture of pragmatism in education. His extensions should appease these critics for the most part—at least for textbook purposes.

Two new chapters have been added: "Building a Philosophy of Education," and "A Confession of Faith: The Outline of a Philosophy." Here the author suggests that each student should follow his example and set forth his own synthesis, presumably in the light of these conflicting philosophies.

Laudable as this suggestion seems to be, there are two questionable assumptions here: (a) Are students really capable with their limited maturity and experience of even approximating any such "synthesis" as is suggested? Realistically are they not much more likely to obtain an eclectic gathering of divergent principles? (b) In order to obtain any new *synthesis* in conflicting philosophies is it not imperative that new philosophical postulates as guiding principles for integration be formulated to avoid mere eclecticism—which by definition has no guiding principles of integration? In his confession of faith has not Professor Butler too made it necessary for him to face the challenge of these questions?

Despite these questions, which are not criticisms of the text, but are crucial problems continuing in this field, this reviewer highly recommends Butler's revised text as one of the best in the field of educational philosophy.

FRANK C. WEGENER
Long Beach State College

SOCIAL STUDIES

AN INTRODUCTION TO POLITICAL PHILOSOPHY by A. R. M. Murray. Philosophical Library, Inc., 240 pp. $4.75.

Extension Lecturer in Social Philosophy in the University of London, Dr. A. R. M. Murray has here provided the substance of his lectures in an "Introduction" in a convenient little volume about the size of the American "pocket-book." Fifteen chapters are devoted to leading political philosophers from Plato to Marx.

It is intended both for the college or university student and for the general reader "who desires to learn something of what philosophy can do to define and resolve the fundamental issues underlying political controversies."

An Introduction serves this purpose nicely. In fact—although it is agreed that they are written from vastly different perspectives—it may be even more suitable for the layman's reading than that modern classic, Will Durant's *Story of Philosophy*. Certainly Mr. Murray has had his students at heart in the logical arrangement of his purview and in the clarity of his explanations of differing viewpoints.

Dividing philosophy on the general basis of rationalism and empiricism, Murray labors to deal out equal justice to both camps. This continues to be true although his patent admiration for Hume's moral and political theory comes to the fore in many of the chapters which follow "Machiavelli."

Presently Chapters XI and XIII relating to Hegel and Marx should be of particular interest as should be Introduction, xxxx. Indeed, the whole work, offering as it does, so many convenient yardsticks for assessing the main issues of contemporary politics, should be "required reading" for high school social studies teachers and many more besides.

In addition to the philosophies mentioned, Aristotle, St. Thomas, Hobbes and Locke as well as Rousseau, Burke, Bentham, and

Mill are treated. A concluding chapter, "The Justification of Government" cross-sectionalizes the discussion and rationalizes the "moral" basis for governments. Especially interesting here is a recapitulation of the positions of the Conservative and Labor parties in the United Kingdom.

Since this survey is so clearly written and the interpretation so cogently argued, this reviewer cannot help but recommend *An Introduction to Political Philosophy* for use both by teachers and general readers.

KENNETH V. LOTTICK
Montana State University

ECONOMICS: AN INTRODUCTION TO PRINCIPLES AND PROBLEMS by Myron H. Umbreit, Elgin F. Hunt and Charles V. Kinter. McGraw-Hill Book Company. 617 pp. $6.00.

With a few not-too-noteworthy exceptions post-war college-level introductory textbooks in economics have been cast in a single mold. The uninitiated might deduce that such uniformity reflects the stability of a well-grounded, mature science. Others conclude that it merely reflects the intellectual sterility of economists in general. Although there is no truth in the first conclusion, the second, to some extent at least, confuses sterility with inertia—the inertia characteristic of any established body of complex doctrine whose tenets cannot easily be subjected to incisive tests of validity. The purpose of these remarks is to indicate that a critical review of an economics text must be made within the context of the present state of the subject if injustice to a particular author is to be avoided.

The present text affords illustration of these points. Its standardized format includes an introductory section, somewhat longer than usual, in which "the foundations of economic life" are set forth. Here are treated the nature of economic activity, economic organization, production, consumption, population, resources and technology. Part Two is devoted to national income measurement and theory, the monetary system, economic fluctuations and government policies to control them. In their preface the authors point out that they have made a special effort to integrate monetary with income and employment theory. They have succeeded measurably—but in what some consider an essentially bootless task. Part Three treats the mechanics of price determination and distribution in pleasingly brief fashion (100 pp), without undue slighting of the traditional theoretical elements. The fourth and longest section (232 pp.) is given over, again in standard fashion, to "some major problem areas." These in order of presentation are public finance, the labor problem, social security, monopoly, public utility regulation, agriculture, international economic relations, and socialism-communism. Here the authors have achieved an admirable balance without descending to the vacuous depths of complete indifference with respect to social policy. One is in little doubt as to whether they think the right direction lies (the American way is their choice), but they avoid the appearance of preaching. The coverage in this section is somewhat more extensive than usual, especially in view of their conscious attempt in earlier sections to inform theory by means of policy applications. It is therefore the more unfortunate that they have slighted the underlying mechanics of international payments, an area in which the American citizen displays abysmal ignorance to the peril of our national security.

In spite of its routine presentation the book is not without constructive emphasis. Economic theorists-at-large are most reluctant to admit that their study deals directly with human behavior, a reluctance that stems mainly from an earlier and disastrous entanglement with hedonistic psychology. It is therefore refreshing to find considerable emphasis on the fact that economics deals with social behavior, that social attitudes and policy are important to economic

growth, and that institutional factors have played a role in America's past economic accomplishments.

The book is notable for its clarity of exposition and is largely free from the blunders and contradictions that mar some of the leading works (saleswise) in the field. In some instances, for example the nature of money and the difference between money and income, seeming consistency is achieved by dignified vagueness, but this again is standard procedure in the field and should not be charged against the authors. The defects of the book, in other words, are mainly the defects of the discipline. The authors may be credited with a workmanlike job.

WILLIAM C. BAGLEY, JR.
Rutgers University

MASS COMMUNICATION by Erik Barnouw. Rinehart and Company, 280 pp. $4.50.

This recent volume is about the timely topic of mass media of communication and is written by one well qualified to write in the field. Eric Barnouw, Associate Professor of Dramatic Arts, is in charge of courses in television, radio, and motion pictures at Columbia University. He is also editor of *Center for Mass Communication*, published by the Columbia University Press.

According to a recent finding of the American Institute of Public Opinion 57 per cent of our high school students and 26 per cent of our college graduates have not read a book for the past year. If we try to read cultural degradation into this evidence, we may find ourselves on shaky ground. The truth of the matter is that literacy is increasing and that we have blundered into cultural illumination without precedent; namely, mass communication. As the author of the present volume notes, "we are seldom out of reach of a radio, seldom go a day without seeing a television program, seldom sit in a chair without finding a magazine, newspaper, comic book or pocket book at hand, seldom go from one place to another without getting advice from billboard or loudspeaker, seldom go a week without seeing a movie at a theater, school, club, church or office" (p. 33). These influences are a revolution in men's way of disseminating information and ideas; they constitute the communications revolution, which is part of the Industrial Revolution.

In Part I is traced the evolution of the newspaper from the dingy four-page newsletter, issued weekly or irregularly, and usually read aloud in the colonial coffeehouses, to the modern newspaper which prints fulsome news reports and forthright editorial fulminations, and also regales readers with comics, jokes, puzzles, advice to the lovelorn, household hints, racing tips, recipes, and the story of Hollywood. Also treated in the first part is the "moving image," the principle of which is that of the lens and which has led to the film, one of the most powerful means of educating the masses. Another medium considered is the message-sending device utilizing magnetism. This phenomenon, e.g., the telegraph, telephone, radio, television, which was known since ancient times, remained in "the realm of speculation awaiting further knowledge of physics and the pressure of need."

Once it was true that if a man built a better mousetrap, the world would beat a path to his door. Now we are told that "the mousetrap beats a path to the door of the customer." Mass communication then involves (1) quantity production of words, images, and sounds; (2) wide geographic distribution; (3) retail outlets—television station, radio station, newspaper, theater, store, library, club, church, school.

The first two sections deal with the sociological aspects of mass media. The third part is entitled "The Psychology of Mass Media." In discussing the psychology of the masses, Barnouw begins with a look at

audience pull. After asking the questions, What makes this phenomenon? What draws and holds audiences? Is "entertainment" the secret? he proceeds to discuss terms important in the vocabulary of psychology, and also frequently used by the practitioners of mass communication: fantasy, identification, taboos, security, sublimation, attention, emotion, information, idea, action.

In this epic of the industrial age, which tells how men developed means for mass production of words, images, sounds, and how men get them to far-flung audiences, an important person is the sponsor. It is he who communicates with the public through various methods: through space and time purchased from the media; through news releases issued to all media; through entertainment features in all media. The problems of the sponsor depend to a large extent on whether it is (1) a business firm, (2) a governmental agency, (3) a non-profit, non-governmental organization. The problems of each are examined separately.

This book comes at a time when we are on the threshold of a new era, when we are witnessing the extension of mass media in our lives. We can hardly predict what tomorrow will be. However, as we are reminded by a well known columnist, we can be sure that tomorrow will not be the same as yesterday or today. And Alice in Wonderland, if she were around passing judgment on things in general and on the communication situation in particular, might argue in this circuitous fashion:

> "Living backwards!" Alice repeated. "I never heard of such a thing!"
>
> "—but there's one great advantage in it, that one's memory works both ways," the queen replied.
>
> "I'm sure *mine* only works one way," Alice remarked. "I can't remember things before they happen."
>
> "It's a poor sort of memory that only works backwards," the Queen remarked.

EDNA L. FURNESS
The University of Wyoming

PASSPORT TO FRIENDSHIP by William Peters. Philadelphia and New York, J. B. Lippincott Co., 1957, 286 pp. $3.75.

Passport to Friendship is an account of The Experiment in International Living, an educational project which has taken young people to more than forty countries in the course of twenty-five years. The book, which is partly a narrative history of the movement and partly a biography of Donald Watt, its founder, includes a Foreword by Pearl Buck.

In describing the organization, the author emphasizes that the Experiment in International Living is not merely a sightseeing excursion; rather it is an attempt to help young people to grow in knowledge and understanding of the members of other nations. This is accomplished in a direct and meaningful way—by person-to-person contact. The fundamental plan of the project is to send small groups of young people between the ages of sixteen and thirty to a foreign country with the guidance of a leader. For the first half of their eight-week stay, individual members of the group are placed in the homes of families in the nation they are visiting. During this time, they strive to adapt themselves to the habits and customs of their adopted families. The second half of the visit usually includes an outdoor pleasure trip shared by experimenters and their young hosts.

Young people from all walks of life—secretaries, students, school teachers—have participated in the movement, and the book is filled with their adventures in many lands. A highlight of the narrative is the description of the pioneer trip to India in 1953 which provided experimenters with a variety of experiences, including living for three days in a compound in a small Hindu village. In a chapter devoted to the Dutch Experiment, an American college girl expresses her misgivings about meeting her Dutch "sister" but later relates her reluctance to leave. A Japanese Fulbright scholar declares that his stay with an American

family in Michigan gave him "a precious experience of seeing American life from the inside not the outside as I used to do through books and magazines." The book also describes one of the unique developments of the movement—the selection by a town of a representative young person as a community ambassador who upon returning from The Experiment would speak to various groups about the new insights into international understanding gained from the experience.

Passport to Friendship should find a place in all high school and college libraries and might profitably be read by parents, teachers, student counselors and others responsible for the guidance of youth so that more young people might share the inspirational and educational benefits of The Experiment in International Living.

Evelyn M. Willson
Newark State Teachers College

The Essence of Chinese Culture. Chang Chi-Yun, The China News Press, 25, Lane 16, Section II, Chung Shan N. Road, Taipei, Taiwan, China, 1957. $4.00.

American educators whose work and professional interests include contacts with Chinese students or the understanding of the cultural and social conditions of contemporary Free China will find *The Essence of Chinese Culture* invaluable. The author, Dr. Chang Chi-Yun, is Minister of Education of the Republic of China. He served for a period of twenty-two years as a professor in Chinese Universities, his fields being cultural history and cultural geography. He has traveled and lectured in the United States and studied for a period of two years (1943-1945) in Harvard University. Since the Communist rebellion in 1949, Dr. Chang has given intellectual and political leadership to the movement which seeks to preserve the finest elements of Chinese art, philosophy, and life in general. He is doing this by so interpreting these elements that they may be the foundation upon which Free China builds her modern social institutions, including her educational system.

The Essence of Chinese Culture, the first of a projected three volume work of the same name, is a scholar's exposition of a complex subject addressed to educated laymen, both Chinese and foreign. It is a compilation of articles and essays which have appeared in Chinese periodicals, lectures to learned societies in China and in America, and speeches delivered on a wide variety of occasions to Chinese or to visitors from a wide array of countries. The forty-six originally separate communications have been organized under ten headings: (1) History and Geography, (2) Confucianism, (3) Contemporary China, (4) Taiwan, (5) Chinese Art, (6) Scientific Humanism, (7) New Education, (8) East and West Cultures, (9) Sino-American Relations, and (10) International Cultural Cooperation. An appendix containing an exposition of "The Problems of China" and of "The Red Threat to Chinese Culture and Christianity" completes the volume. The organization gives something of unity to the volume.

The real unity for the American reader is obtained by the systematic development of an understanding of the Chinese mind. The principal elements of the history and geography of the eastern provinces, the cradle of Chinese culture, are presented in broad outline. To these elements is added an exposition of the principles of Chinese philosophy and art in language that can be understood by the educated American who is a layman in the field of Chinese culture. A similar treatment of Taiwan which is near, culturally related to, but not identical with China enables the reader to appreciate the problems of adjustment faced by the Republic when the alien philosophy of Communism, through revolution, forced the evacuation of the mainland.

Dr. Chang offers his people "scientific humanism" as the basis for the solution of their problems of subsistence and of life. He argues in effect that modern science and technology must replace the ancient means of producing their material necessities if their country is to survive, to say nothing of prospering. He also argues that the fundamental moral values to which good Chinese have held through the centuries will continue to hold in the new scientific age, if properly interpreted. This reviewer feels that it is Dr. Chang's position that the making of these interpretations should be the first order of business for Chinese scholars and philosophers.

While it is true that vast treasures of art and of literature were lost to Free China through the Communist revolution of 1949, the Republic succeeded in moving enough to give its people a sure tie to its ancient culture. There is always the hope that more may be re-possessed and thus added to the heritage of future generations. However this may be, it is certain that a new, functional educational system must be built. Through the speeches here published, the reader is lead to see the dimensions of this new education: kindergarten to the university, male and female, adult and childhood, technical, political and cultural.

The last third of the book is international in the sense that most of the essays and speeches seek directly to interpret the East to the West, or vice versa. Both approaches are enlightening to the typical American. Dr. Chang on the one hand explains China in Western terms, and on the other explains Western culture in terms of Eastern values and aspirations. The reader will gain new understandings of the fundamental elements that are common to our cultures, and new insights into the ways in which the peoples of the West and of Free China can work together for their mutual benefit in a world threatened by the common enemy—Communism and the philosophy of dialectical materialism.

One hundred fifty illustrations are included with the text. Maps clarify the exposition at appropriate points. Photographic reproductions of art objects add meaning to certain parts of the exposition and are a pleasure to study for their own sake. Photographs of persons and of scenes add the personal touch to the book. An index containing approximately 250 entries increases the usefulness of the book as a reference.

This volume will be a distinct addition to the library of the general reader. It will prove exceptionally valuable to any American whose work brings him into contact with students and other representatives of the Republic of China. It should certainly be available in the libraries of institutions of higher learning, governmental agencies and in Chinese collections of general libraries.

H. A. CURTIS
Florida State University

A genius of American education has been its unity through diversity. This diversity should be preserved, with strengthening all along the line and greater stress on the importance of quality everywhere. In short, all our human resources must be vastly strengthened through the medium of improved education.—PROBLEMS AND POLICIES COMMITTEE OF THE AMERICAN COUNCIL ON EDUCATION, 1958

Brief Browsings in Books

Educating Citizens for Democracy: Curriculum and Instruction in Secondary Social Studies, published by the Oxford University Press, is under the editorship of Richard E. Gross, of the School of Education, Stanford University and Leslie D. Zeleny, of Colorado State College, Greeley, Colorado. Writing is by them and associates. Five sections discussed: the problem of education for democratic citizenship; the curriculum in the social studies; contributions of a unified curriculum; using professional skills; and evaluation and perspective. It is designed as a textbook in secondary school methods in a *functional* curriculum. The final chapter, "A Program for the Future" invites careful reading and reflection. The volume of 591 pages sells for $6.00.

The Yearbook of Technical Education and Careers in Industry 1958 (Second Annual Issue) is published by A. and C. Black, London (4, 5, and 6 Soho Square). It is edited by H. C. Dent for ten years Editor of the *Educational Supplement* of *The Times*, now Professor of Education at the University of Sheffield. Of the first edition *The Times* wrote that it is "The Baedeker and Bradshaw" of the subject. A volume of 1158 pages, it sells for 30 shillings (approximately $4.20) and is well worth it. The importance of the publication is shown by production figures. Of gross national production in Britain 46% comes from manufacturing industry; in the United States 16%; in the U.S.S.R. still lower. In February 1956 the Government announced its proposal to spend £100,000,000 ($280,000,000) in expanding and improving Britain's technical colleges and to increase the output of technical students. This *Yearbook* is designed to inform parents and their sons and daughters about careers in modern industry, "how to enter them, how to rise in them and what prospects they have to offer." It is a "Who's Who" among technical institutions and a "What's What" of occupational demands.

Virginia Burden is the author of *The Process of Intuition*, a small volume of 70 pages, published by Greenwich Book Publishers, New York City, at $2.50. *Intuitive* people are distinguished from the *intellectual*. The volume is described by the author as a "psychology of the creativity and human, democratic living."

Mary Muldoon is the author of *Learning to Teach* which is a handbook for beginners. The book is planned to help young teachers during their first two or three years in their positions in the upper elementary grades or high schools. It is the result of the author's notes for faculty members and as a summer school instructor for twenty-two years. It is a small volume of 287 pages, published by Harper and Brothers at $3.50. Among the practical down-to-earth topics treated are: the first day, establishing routines, lesson planning, arousing and maintaining pupil interest, using the textbook, individual instruction, relations with pupils, extra-curricular activities, public relations, and pupil control.

Religions of Man, a Harper and Brothers publication, interprets the great religious traditions of Hinduism, Buddhism, Confucianism, Taoism, Islam, Judaism and Christianity. Written by Houston Smith, Professor of Philosophy, Washington University, it is designed "against the backdrop of critical scholarship to carry the intelligent laymen into the heart of the world's great living faiths." In the book's 328 pages there is a scholarly presentation of each religion, and differences and similarities are shown. Dr. Smith, formerly of Washington University, was recently appointed Pro-

fessor of Philosophy at the Massachusetts Institute of Technology. The book is listed at $5.00.

Counseling is a process to be conjured with in modern education. Few are the areas within which there are not specialized treatment. A recent one, not previously treated, is *Counseling the Emotionally Disturbed* by C. H. Patterson of the University of Illinois. It is a volume designed to be of use to all engaged in treating mental disturbances, and is not intended for the untrained neophyte. Major attention is given to the counselor of the patients, the selection of clients and the counseling process. The volume of 458 pages, selling for $6.00 is published by Harper and Brothers.

Another Harper publication which merits attention is *Teacher-Pupil Planning for Better Classroom Learning* by Louise Parrish and Yvonne Waskin. The procedures here presented depart from the teacher-dominated classrooms to informal teacher-pupil planning characteristic of the project method. The authors seek to arouse "meaningful classroom experience." Among the chapter subjects are those on getting acquainted, beginnings in planning, plans in action, techniques of evaluation, human relationships, developing leadership and the role of the teacher. There are 160 pages. The price is $3.50.

How to Sell Yourself, Your Ideas, Your Products, by Charles E. Irvin, is a typical volume on high-powered salesmanship of the type often proposed at service clubs. Illustrative of chapter headings are the following: "Look Who's Talking," "The Salesman and His Message," "Let Your Voice and Body Speak," "Profit-Hearing in Selling," and "The S.O.S. of Selling." There is much sound advice. This book of 168 pages, unindexed, is published by The American Press, New York City at $2.75.

Though there is separation of church and state in the United States, there is general concern regarding religious education. *The Christian Teacher*, the Abingdon Press, is written by Perry D. LeFevre, of the University of Chicago, a senior associate in the Danforth Foundation. It is addressed to the college and university teacher. The list price is $2.75.

At a time when discipline in schools is under attack our readers will welcome a brief paperback discussion of *The High School Principal and Staff Deal with Discipline* by Ovid F. Parody. It is issued by the Bureau of Publications, Teachers College, Columbia University, New York at $1.25. There are 93 pages.

The University College of North Staffordshire, Keele, England, has begun a series entitled The Sociological Review Monographs. Published by the University at 12 shillings ($1.68) the first is on the subject *Papers on Teaching of Personality Development.*

A second edition of *Student Teaching in the Elementary School* has come from the press of Appleton-Century-Crofts, Inc. The authors are James R. Burr, Lowry W. Harding and Leland B. Jacobs. In the revision the attempt is made to make many ideas more explicit and refined. Enough detail is given so as to make them clearly understood. The book of 459 pages sells for $5.75.

The Institute for Social Science Research, 917 15th Street, N.W., Washington, D.C. has issued the first volume in a two-volume set on Financing the Public Schools. Volume I, here being reviewed, is *School Needs in the Decade Ahead.* In its 273 pages, Royer A. Freeman, the author, projects the requirements of the schools to 1970. The chairman of the Board of Trustees of the Institute states: "This book is indeed a lighthouse amid the emotional fog in which this vital subject is all too customarily obscured." The price is $5.00.

Worthy of Note

Adler, Irving, *The Stars, Steppingstones into Space.* New American Library, New York, 1958. Pp. 123. $.35. (paperback)

Administrative Theory in Education, Edited by Andrew W. Halpin. The Midwest Administration Center, Chicago, Illinois, 1958. Pp. 188. $3.00. (paperback)

Bowen, R. N. C., *The Exploration of Time.* Philosophical Library, New York, 1958. Pp. 138. $6.00.

Atkin, J. Myron and Burnett, R. Will, *Electricity and Magnetism.* Rhinehart & Company, Inc., New York, 1958. Pp. 58. $1.00. (paperback)

Atkin, J. Myron and Burnett, R. Will, *Air, Winds, and Weather.* Rhinehart & Company, Inc., New York, 1958. Pp. 58. $1.00. (paperback)

Benson, George C. S. and Payne, John M., *National Aid to Higher Education.* American Enterprise Association, Washington, D.C., 1958. Pp. 36. $1.00. (paperback)

Bryan, Roy C., *Student Reactions and Merit Salary Schedules.* School of Graduate Studies, Western Michigan University, Kalamazoo, Michigan, 1958. Pp. 63. $.50. (paperback)

Camm, F. J., *Mathematical Tables and Formulae.* Philosophical Library, New York, 1958. Pp. 129. $2.75.

Coleman, James A., *Relativity for the Layman.* New American Library, New York, 1958. Pp. 124. $.50. (paperback)

Cooney, Timothy, *Ultimate Desires.* Philosophical Library, New York, 1958. Pp. 100. $2.75.

Crime and Insanity, Edited by Richard W. Nice. Philosophical Library, New York, 1958. Pp. 276. $6.00.

Firth, Raymond, *Human Types.* New American Library, New York, 1958. Pp. 166. $.50. (paperback)

Goins, Jean Turner, *Visual Perceptual Abilities and Early Reading Progress.* The University of Chicago Press, Chicago, Illinois, 1958. Pp. 108. $2.00. (paperback)

Great Flying Stories, Edited by Frank W. Anderson, Jr. Dell Publishing Co., New York, 1958. Pp. 256. $.50. (paperback)

Great Russian Short Stories, Edited by Norris Houghton. Dell Publishing Co., New York, 1958. Pp. 383. $.50. (paperback)

Hill, T. H. Ward, *Mathematics for the Layman.* Philosophical Library, New York, 1958. Pp. 338. $4.75.

Hock, Louise E., *Using Committees in the Classroom.* Rhinehart & Company, Inc., New York, 1958. Pp. 54. $1.00. (paperback)

Hoffer, Eric, *The True Believer.* New American Library, New York, 1958. Pp. 151. $.50. (paperback)

Indian Education Abstracts, March & June, September, December, 1957. Educational Abstracting Service, Ministry of Education, Government of India, New Delhi, India.

Kago, Fred K., *Wirute Guthoma, Book 3.* Thomas Nelson & Sons Ltd., London, 1958. Pp. 78. 2 shillings 6 pence ($.35). (paperback)

Lewis, Sinclair, *Elmer Gantry.* Dell Publishing Company, New York, 1958. Pp. 447. $.50. (paperback)

La Educacion. Panamerican Union, Washington, D.C., October-December 1957. Pp. 62.

McDaniel, E. F., *Discovering the Real Self.* Philosophical Library, 1958. Pp. 116. $3.75.

Maggarr, A. B., Scripture Teaching for Tropical Schools. Thomas Nelson & Sons Ltd., Edinburgh, 1958. Pp. 118. 6 shillings 6 pence ($.91).

Modern Lyrical Verse, Edited by B. W. Rose and R. S. Jones. Thomas Nelson and Sons, Ltd., Edinburgh, 1958. Pp. 102. 6 shillings ($.84).

Private Schools. Porter Sargent, Publisher, Boston, 1958. Pp. 1248. $10.00.

Salt, Charles R., *Man in Search of Immortality*. Philosophical Library, New York, 1958. Pp. 181. $3.50.

Sargent, Porter, *Guide to Summer Camps and Summer Schools*. Porter Sargent Publishers, Boston, 1958. Pp. 160. $3.30 clothbound, $2.20 paperbound.

Schreiber, Robert E., *Improving the School's Audio-Visual Program*. Northern Illinois University, DeKalb, Illinois, 1958. Pp. 23. $.25.

Sechrest, Carolyn A., *New Dimensions in Counseling Students, A Case Approach*. Bureau of Publications, Teachers College, Columbia University, New York, 1958. Pp. 115. $3.00.

Taylor, A., *New Nation Arithmetics*, Book Five. Thomas Nelson and Sons, Ltd., Edinburgh, 1958. Pp. 126. 3 shillings, 6 pence ($.49). (paperback)

The Reformed School, Edited by H. M. Knox. Liverpool University Press, Liverpool 7, England, 1958. Pp. 73. 6 shillings ($.84). (paperback)

Vander Werf, Lester S., *How to Evaluate Teachers and Teaching*. Rinehart & Company, Inc., New York, 1958. Pp. 54. $1.00. (paperback)

The *Saturday Review* reported (June 21, 1958), quoting from a volume in "American English" by Albert H. Marckwardt, that English is today the first language of 230 million people. Contrasted with 1750 when it was the fifth among the languages of the Western world, it is now first. More and more it is becoming a second language. Now about three-fifths of the world's radio stations broadcast in English, and three-fourths of the world's mail is written in English.

Behind the By-Lines

(Continued from page 4)

Bailey, of Nottingham, England, who is the BBC Education Officer for the North Midland Division of the School Broadcasting Council, in close touch with the schools, has written several articles for past issues of THE EDUCATIONAL FORUM.

Educating Teachers: Discipline or Profession? attacks a fundamental problem in the preparation of teachers. The author is Joseph Justman, Professor of Education, Brooklyn College. In 1956-1957 Dr. Justman was the International Fellow of Kappa Delta Pi. His "The Italian People and Their Schools," was written as an outcome of his year's study abroad. Recently he was co-author with Walter Mais of "College Teaching."

As a phase of study of the problem of the education of the gifted child, the Ford Foundation has financed a study of early admission to college. This subject is treated by Allan Larson, Teaching Fellow, Department of Political Science, Northwestern University, Evanston, Illinois. The title of his article is *The Early Admission Experiment of the Fund for the Advancement of Education.* Mr. Larson is a member of Kappa Delta Pi.

Well-known poets have contributed. Dorothy Lee Richardson, well-known to our readers, of the Philippine Islands, has contributed *In Autumn.* Jane Stuart, a high school student in Kentucky, has sent us the vivid *The Dress of Autumn.* One of her poems was published last year. A group of her poems was printed recently. *Sparrow's Return* is the work of Nell Griffith Wilson, of California, formerly state president of the National League of American Pen Women, and Western Writers. *Inevitable* is by O. L. Abbott, of the Department of Foreign Languages, Michigan State University. K. Stevenson Shaffer, of Philadelphia is author of *Night Beauty.* Helen G. Jefferson, a frequent contributor to THE EDUCATIONAL FORUM, has submitted the poem *Land's End.*

The Editor

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by

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